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Reference

DEPARTMENT OF THE ARMY FIELD MANUAL

COMBAT SERVICE SUPPORT

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FIELD MANUAL
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HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 4 October 1968

COMBAT SERVICE SUPPORT

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PART ONE
GENERAL
CHAPTER 1
INTRODUCTION

1-1. Purpose and Scope

a. The three major subdivisions of military activity are combat, combat support, and combat service support. This manual prescribes doctrine for use by commanders and staff officers at division and higher levels in providing combat service support to the Army in the field. It specifically addresses combat service support at theater army support command, field army support command, and corps support command levels.

b. Combat service support is the assistance provided operating forces primarily in the fields of personnel and administrative services, civil affairs, construction, labor maintenance, supply, transportation, and other logistic services.

c. The contents of this manual are applicable to—

(1) General war, to include consideration of the employment of, and protection from, nuclear, biological, and chemical (NBC) munitions; and operations in NBC environments.

(2) Limited war.

(3) Cold war, to include stability operations.

d. The combat service support doctrine presented in this manual requires the availability of automatic data processing equipment (ADPE) and associated communications systems to permit its full application. These items were under development at publication time. Accordingly, for those tasks described in the manual to be performed by ADPE, a transition period will exist during which current methods will be replaced as equipment becomes available.

1-2. Recommended Changes

Users of this manual are encouraged to submit recommendations to improve its clarity or accuracy. Comments should be keyed to the specific page, paragraph, and line of text in which the change is recommended. Reasons should be provided for each comment to insure understanding and complete evaluation. Comments should be forwarded direct to the Commanding General, U.S. Army Combat Developments Command Institute of Combined Arms and Support, Fort Leavenworth, Kansas 66027. Originators of proposed changes that would constitute a significant modification of approved Army doctrine may send an information copy, through command channels, to the Commanding General, U.S. Army Combat Developments Command, Fort Belvoir, Virginia 22060, to facilitate review and followup.

1-3. References

When applying material in this manual, the user should consult FM 19-45-1 (Test), FM 31-23, FM 54-series, FM 100-5, FM 100-15, FM 100-20, FM 101-5, and FM 101-10-series. The user should also consult joint doctrine promulgated in JCS Pub 2, and JCS Pub 3, when applying material herein in joint operations.

1-4. Operational Environments

Conflicts in which U.S. Forces may be employed involve a variety of situations and conditions. General war remains a constant threat. Cold and limited war situations can occur anywhere in the world. Forces can conduct stability operations (the military portion of the overall host country program of internal defense and internal development) in any strategically significant area where insurgency

has developed or is a threat (FM 31-23). NBC weapons may or may not be employed. Terrain, climate, weather, and social and economic conditions differ greatly among the possible areas of conflict. Formal agreements with host countries on the status of forces may inhibit the freedom of military action. Similar inhibitions may arise from foreign policy considerations and from international law. In his planning and execution, the commander must always consider and manifest concern for these inhibiting factors. Task orientation and organization to support the combat operation of the force engaged under the operational environment encountered are mandatory to the combat service support system.

1-5. Impact of NBC Operations

a. The advent of nuclear weapons and the possibility of chemical and biological (CB) operations require emphasis on the protection of facilities and installations and on flexibility and mobility in the combat service support system. Large combat service support installations are profitable targets for nuclear attack. The concentration of personnel necessary to operate such installations also invites CB attack. Proper planning and execution of the plans reduce the effects of such attacks. To provide continuing and effective support, the combat service support system must be flexible in terms of communications, transportation, and an adequate number of properly located and dispersed installations. Plans must include alternate means for providing combat service support. The planner emphasizes the maintenance of the flow of supplies and personnel replacements rather than the buildup of stocks by using a support system organized to perform throughput on a routine basis. It is necessary, however, to stock essential supplies near points of anticipated consumption to permit continued operations when lines of communications are disrupted.

b. Alternate channels exist for each type of support. Plans provide for reestablishing the original channel, when interrupted, or for rapidly diverting support into alternate channels. Support means of any one type are not concentrated, but are as widely dispersed as the mis-

sion and rear area protection (para 7-2) permit.

c. Plans for the use of an area for a combat service support installation should include a vulnerability analysis. Camouflage and dummy positions reduce the probability of nuclear attack on actual installations. Measures to reduce the effects of hostile attacks include properly arranging stored materiel; attaining maximum dispersion consistent with control; taking advantage of terrain features; using barricades, revetments, and underground shelters for protection; and thoroughly planning and executing area damage control.

d. It is necessary to disperse; protect; and, where possible, duplicate all facilities to the degree that the situation requires and the mission permits. Factors considered include—

(1) The yield and number of NBC weapons the enemy is capable of delivering.

(2) The nature of terrain, to include natural and manmade facilities, such as mines, caves, and tunnels.

(3) The numbers and types of service units available, the transportation net, and the availability of local civilian labor and other civilian resources.

(4) The reduced efficiency and increased vulnerability to sabotage and pilferage resulting from dispersed combat service support operations.

(5) The calculated risk the command can accept.

(6) The disposition of other troops in the area.

(7) The tactical situation of the supported force.

(8) The degree of protection provided.

(9) The mutual support that military facilities and the civilian population and agencies can provide.

(10) The capabilities of the signal communications system.

(11) The degree of guerrilla activity and sabotage anticipated.

e. Enemy employment of NBC weapons affects combat service support functions. Some examples are—

(1) *Supply*. Reducing the vulnerability of supply operations requires dispersion, cover,

and the use of mobile ammunition supply points. Supplies suspected of exposure to contamination require detailed inspection and, if necessary, decontamination prior to use or issue. Class I supplies and water sources suspected of NBC contamination demand special attention. There is an increase in requirements for the replacement of supplies of any class that have been contaminated by NBC munitions beyond the limits of reclamation. There is also an increase in requirements for replacement items because of the delay inherent in decontamination. There is an increased need for decontamination equipment and supplies, individual protective (impregnated) clothing, clothing impregnation equipment and supplies, and other individual and unit NBC protective equipment.

(2) *Maintenance.* There is an increase in requirements for covered shop space. More time is necessary for repair of equipment that has been contaminated and must be decontaminated prior to repair. Using units are responsible for monitoring and decontaminating equipment, to the extent practicable with authorized decontamination equipment and field expedients, before it is turned in for maintenance. The receiving maintenance unit also checks for contamination. Separate storage sites within maintenance areas may be necessary for the storage and decontamination of equipment prior to maintenance. Disposition of contaminated waste also may present a problem.

(3) *Transportation.* Alternate supply routes are of increased importance. Traffic regulation and control measures are necessary to prevent the use of contaminated routes. Detours and rerouting may reduce the capability of transportation units. Ports and beaches are also vulnerable to contamination by CB agents.

(4) *Construction.* Protective features are essential in key headquarters, communications and automatic data processing facilities, and combat service support installations. Rehabilitation of damaged facilities is much more difficult and time consuming when these facilities also are contaminated. Rehabilitation forces do not normally undertake restoration unless the area affected is of vital importance and the

damaged facilities cannot be established elsewhere with less effort.

(5) *Medical services.* There may be a sharp increase in the number of persons needing medical care, particularly in rear areas. This will generate a great disparity between medical resources and workload. In such circumstances, the medical service requires assistance in labor, transportation, utilities, and the NBC decontamination of patients and facilities.

(6) *Labor.* Civilian and prisoner-of-war labor work less effectively in contaminated areas. Individuals who must wear protective masks and equipment work less efficiently, and there are increased requirements for personnel to perform decontamination tasks. Civilian laborers are reluctant to work in contaminated areas or in potential enemy targets. The rules of the Geneva Conventions prohibit using prisoners of war in contaminated areas unless the prisoners volunteer.

(7) *Personnel services.* NBC weapon employment increases problems in personnel staging (replacement and rest and recuperation encampments), discipline, law and order, traffic control, circulation control of individuals, evacuation of prisoners of war, and the security of critical installations and materiel. Contamination of areas, facilities, and traffic routes, with the resulting confusion and loss of control, imposes heavy demands for the sealing off of stricken areas, the security of critical supplies, and the collection of individuals for return to their units.

(8) *Civil affairs.* An NBC environment affects civil affairs operations. There is an increase in requirements for NBC defense, rear area protection measures, and medical services for cities and towns. These requirements include provisions for shelters and protective equipment, surveys to detect and mark contaminated areas, decontamination of vital facilities, and distribution of food and medical supplies for disaster relief and the prevention of diseases. In a densely populated area, the requirements for aiding civilian casualties could be overwhelming, and this problem could affect tactical operations. The need for calming the

fears of the civilian populace is an additional consideration; psychological operations (PSYOP) are conducted to support this pro-

gram. For detailed PSYOP information, see FM 33-1 and FM 41-10.

CHAPTER 2

TERRITORIAL AND COMMAND ORGANIZATION

Section I. GENERAL

2-1. References

For definitions, description of, and general information on the territorial and command organization of the theater (area) of war and the theater (area) of operations, see JCS Pub 2, FM 100-5, and FM 100-15. For the U.S. Army organization in internal defense and internal development, see FM 100-20.

2-2. Theater of Operations

The needs of the forces assigned to a theater of operations determine the organization of the theater. The general plans for the theater normally prescribe the initial organization. Subsequent organization is a responsibility of the theater commander and is based on theater requirements and experience.

Section II. TERRITORIAL ORGANIZATION

2-3. General

a. The theater commander normally assigns the theater army commander responsibility for that part of a theater of operations necessary for the conduct of the land campaign. The theater army commander normally divides his area of responsibility into a combat zone and a communications zone (COMMZ). The combat zone contains the area required by combat forces for the conduct of operations and the necessary organic combat service support facilities (fig. 2-1). The COMMZ includes the lines of communications, establishments for supply and evacuation, and the area required by the agencies and facilities providing combat service support to elements in the combat zone (fig. 2-1). Initially, a theater of operations may consist of the combat zone only, with combat service support provided directly from the continental United States (CONUS).

b. Territorial organization of a theater of operations varies with the type of theater, the type of forces involved, and the nature of operations planned. Figures 2-2 through 2-4 illustrate schematically examples of various types of theaters of operations.

c. Warfare in an ocean area may prevent the distinct separation of combat and combat service support operations that is achieved in a

continental theater of operations. Combat service support establishments serving the ocean area may be dispersed throughout the theater.

2-4. COMMZ

a. The situation and plans for future operations determine the manner in which the development of a COMMZ proceeds. Possible developments (figs. 2-5 through 2-7) include—

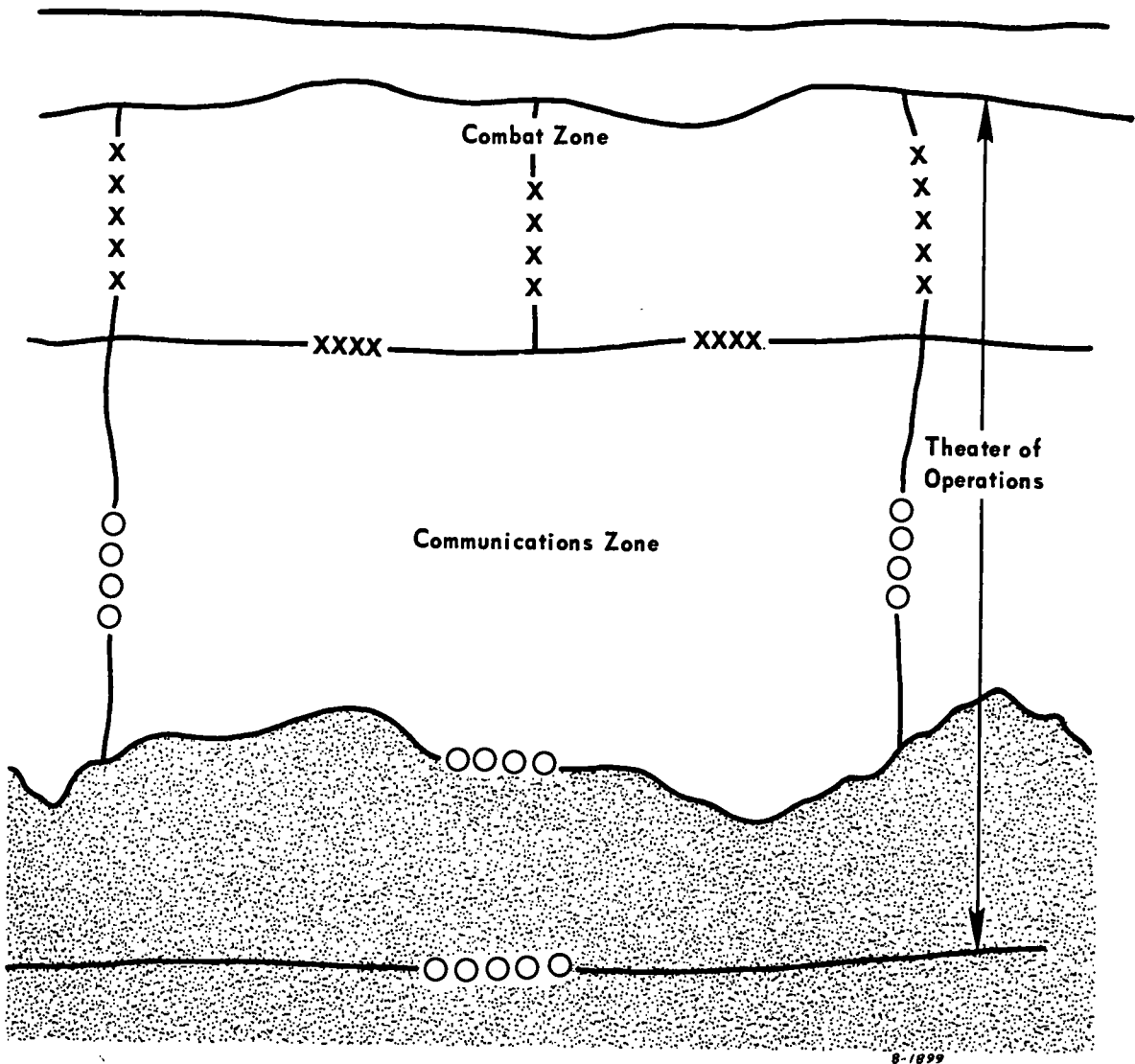
(1) Initially establishing a theater base (AR 320-5) and later changing the base to the COMMZ.

(2) Establishing a COMMZ with no intention of subsequent subdivision. Normally, the commander does not subdivide the COMMZ unless existing conditions make it necessary.

(3) Establishing a COMMZ with plans for subsequent subdivision. Usually, the commander subdivides a COMMZ when the theater becomes extremely deep or when the geographic characteristics of the area so demand; e.g., an ocean area that includes island bases.

b. The steps generally involved in the development of the COMMZ are as follows:

(1) Initially, a theater base supports a division-size force (fig. 2-5). An augmented division support command (DISCOM) may furnish theater base support. When the combat zone expands into a corps operation, a corps support command (COSCOM) provides theater



NOTE: The field army rear boundary (XXXX) normally is also the army group rear boundary (XXXXX).

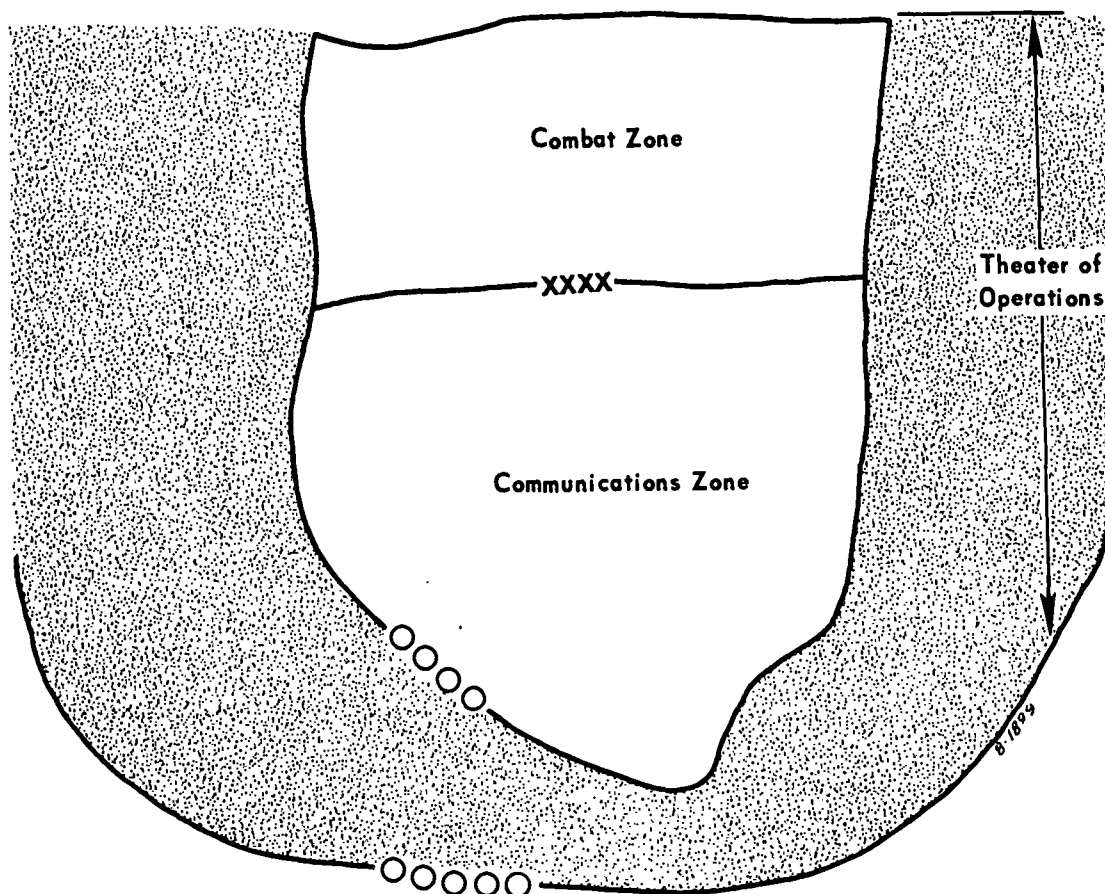
Figure 2-1. United States portion of a theater of operations on a large landmass (schematic).

base support and commands all nondivisional combat service support units. Further expansion of the combat zone necessitates the employment of a field army with its supporting field army support command (FASCOM). The COMMZ comes into being when control of the theater base by the tactical commander becomes impracticable. The theater army support command (TASCOM) commander assumes control of the COMMZ.

(2) As the rear boundary of the combat

zone displaces forward and the depth of the COMMZ increases, the elements operating the lines of communications or executing other combat service support functions require augmentation to maintain a constant level of support (fig. 2-6).

(3) If the COMMZ has extreme depth, the TASCOM commander may subdivide it into two or more area support commands (ASCOM) (fig. 2-7). Paragraph 2-13f discusses the mission of the ASCOM.



NOTE: Size of landmass limits size of force in the theater because of no room for expansion.

Figure 2-2. Theater of operations on a small landmass (island or peninsula) (schematic).

2-5. Combat Zone

The depth of the combat zone depends on the forces involved, the nature of planned operations, the character of the lines of communications, the terrain, and enemy capabilities. The combat zone is normally divided into field army, corps, and division areas (fig. 2-8). Each area is under the control of the commander of the organization to which it pertains.

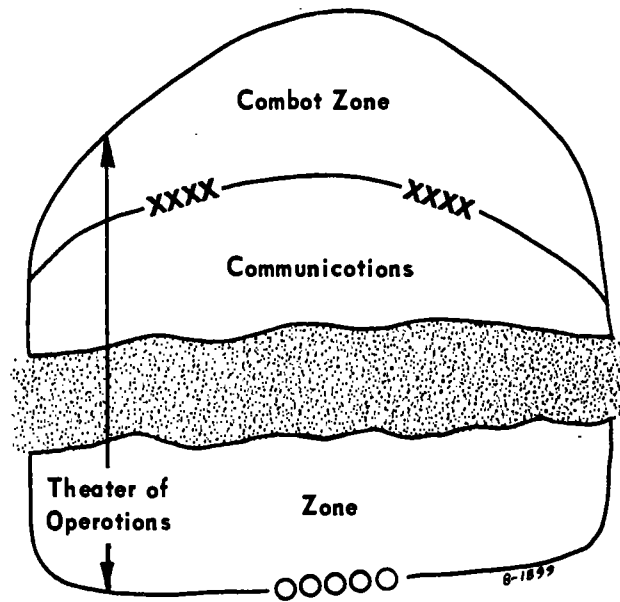
2-6. Boundaries

a. Boundaries delineate territorial responsibility and aid coordination of combat service support operations. The President, through the Secretary of Defense, establishes the geographic limits of a theater of operations. The theater commander designates the rear bound-

ary of the combat zone, normally on the recommendation of the theater army commander. Army group normally retains no territorial control; thus, field army rear boundaries normally coincide with the rear boundary of the combat zone. The field army commander designates corps rear boundaries; corps commanders designate division rear boundaries. Commanders establish rear boundaries of subordinate commands as far forward as practicable to reduce territorial responsibilities of these commands.

b. Considerations affecting the location of rear boundaries include—

(1) Location far enough to the rear to provide room for maneuver and suitable area for combat service support installations.



NOTE: The COMMZ rear boundary (OOOOO) coincides with the theater of operations rear boundary.

Figure 2-3. Theater of operations with the COMMZ interrupted by a large expanse of water (schematic).

(2) Movement forward as soon as practicable to relieve combat units of the administration of territory not required for their operations.

(3) Location in relationship to the road net and other routes of communications. Corps requires good lateral routes behind division rear boundaries, and field army requires good lateral routes behind corps rear boundaries to facilitate movement of troops and supplies.

(4) Identification with easily recognizable terrain features, such as roads, railroads, rivers, and canals.

(5) Planning the movement of the rear boundary well in advance to permit reconnaissance before the transfer of territorial responsibilities.

c. Boundaries are not barriers to combat service support operations. Through coordination between responsible headquarters, service installations and operations of one command may be present in the area of another.

2-7. Territorial Organization for Internal Defense and Internal Development Operations

Organization for internal defense and internal development operations depends on the nature of the insurgency, the desires and capabilities of the host country government, the type and amount of U.S. support requested and required, and the presence of third country allied forces. During an insurgent movement, and depending on its intensity, the government of the developing nation may have from full to very limited control of the population and resources of the national area. Characteristically, combat service support and combat operations will take place in the same geographic area, and there will be no COMMZ and combat zone as such. Consequently, the organization of the area varies according to the situation and is considerably different from that in a theater of operations in a limited or general war and may require modification of the system described

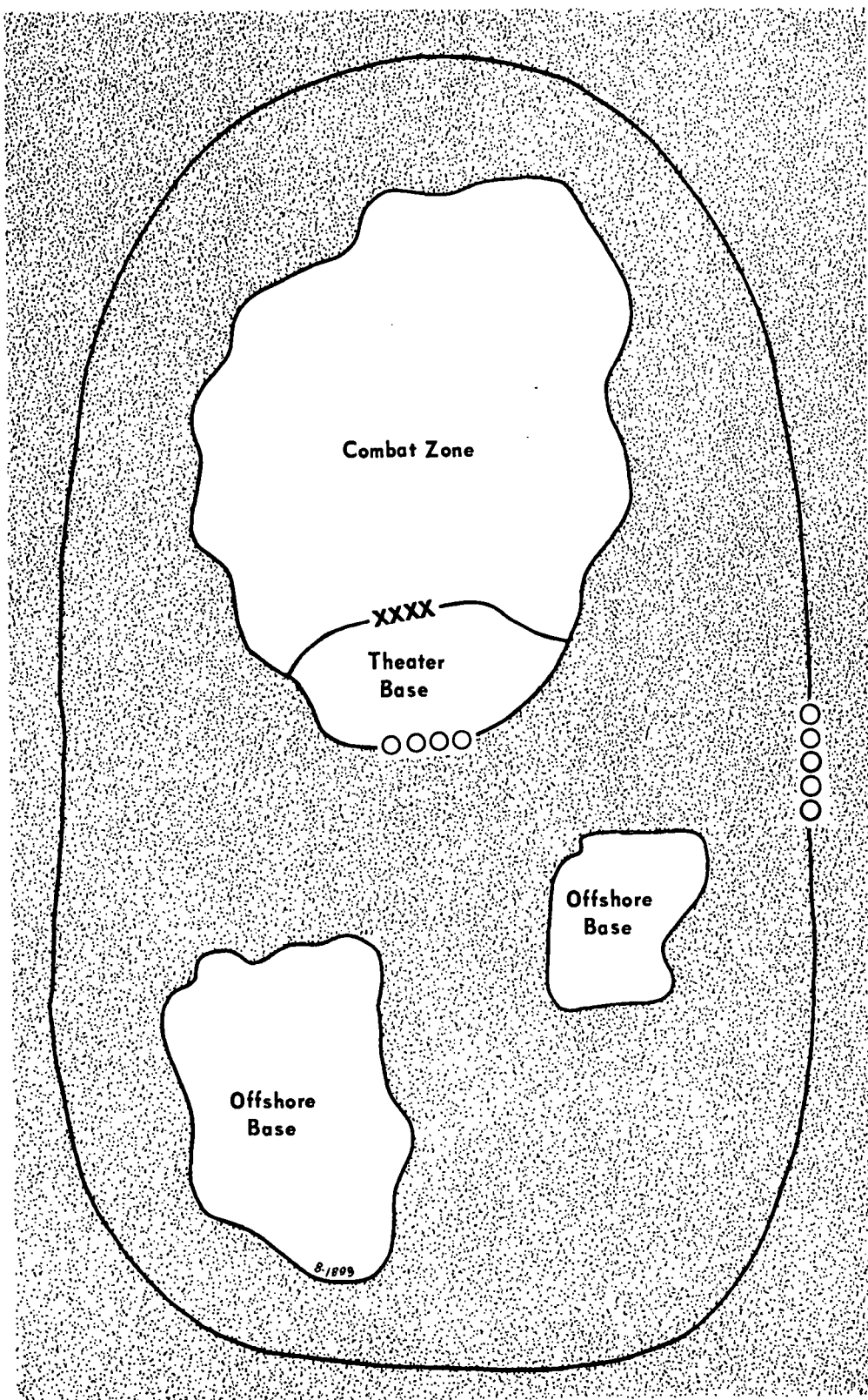
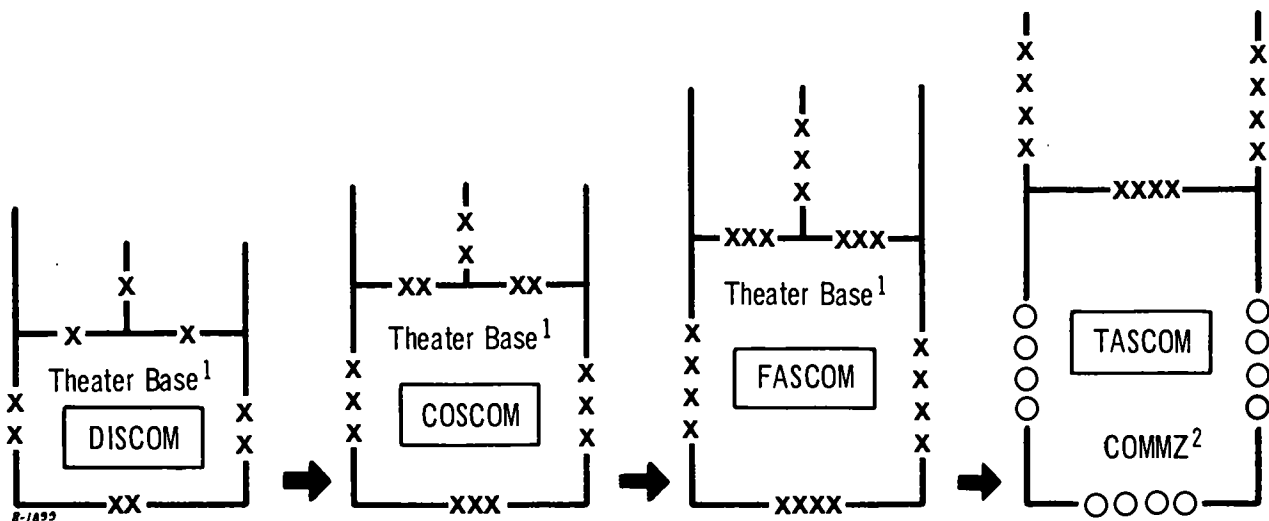


Figure 2-4. Theater of operations, island campaign (schematic).



¹Territorial responsibility normally assigned to the commander of the Army forces.

²Development as shown in figures 2-6 and 2-7.

Figure 2-5. Establishment of a theater base with subsequent phasing to and development of a COMMZ (schematic).

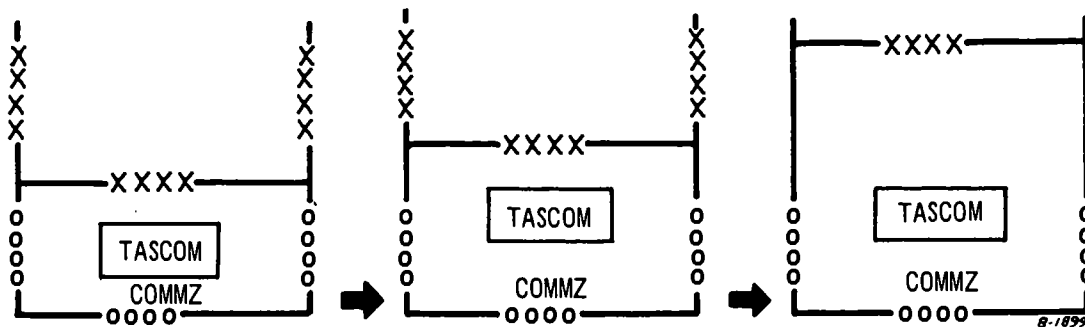
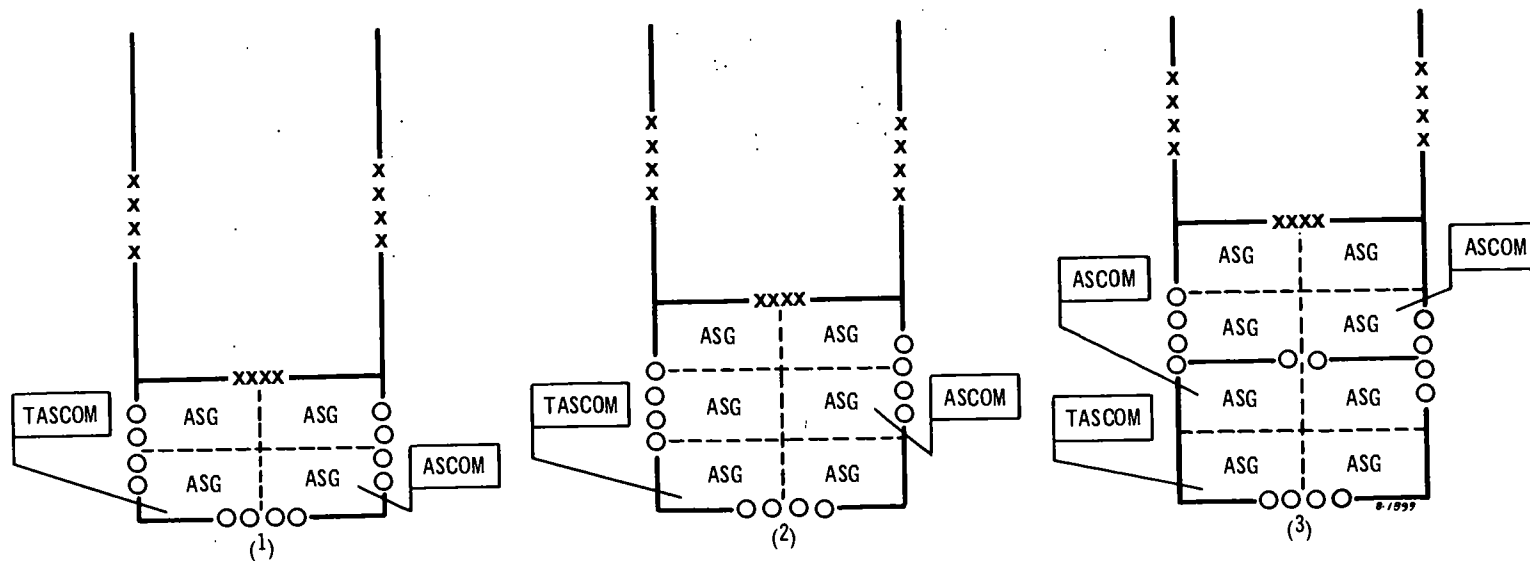


Figure 2-6. Expansion of a COMMZ (schematic).

herein. Because the host country retains its sovereignty, location of installations and bases

is largely dependent on the areas that the host country makes available.



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ASG Area support group.

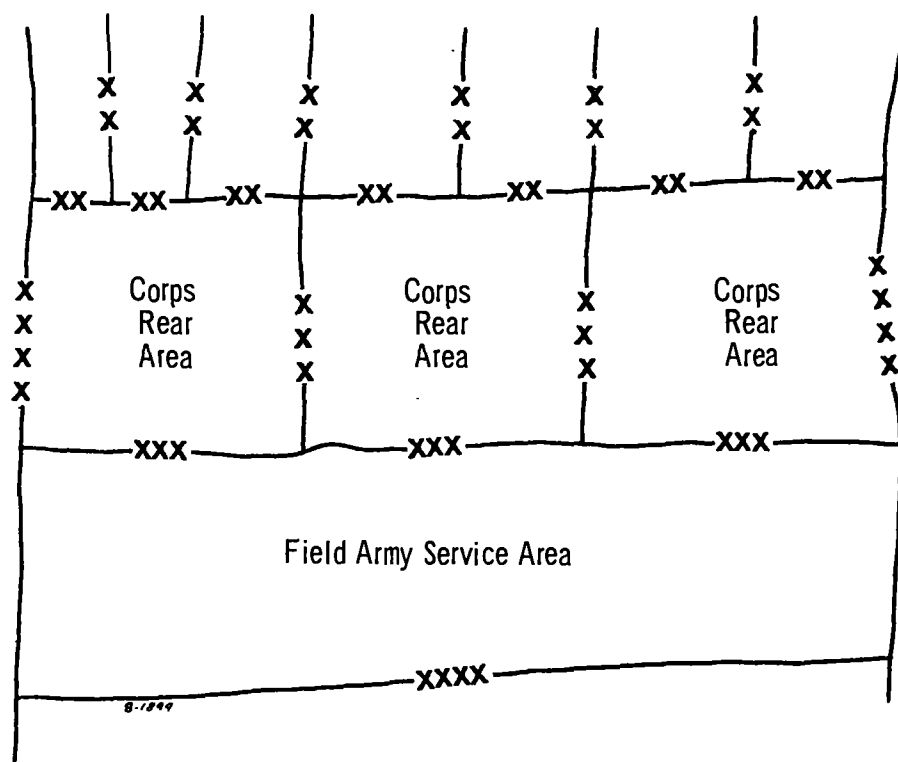
-----Indicates general areas rather than boundaries.

¹TASCOM area (COMMZ) with one ASCOM having four ASG.

²TASCOM area (COMMZ) with one ASCOM having six ASG.

³TASCOM area (COMMZ) with two ASCOM having four ASG each.

Figure 2-7. Development of a subdivided COMMZ (schematic).



NOTE: The field army rear boundary (XXXX) normally is also the army group rear boundary (XXXXX).

Figure 2-8. Example of territorial organization of the combat zone (schematic).

Section III. THEATER COMPONENT COMMANDS

2-8. General

a. The U.S. theater of operations as discussed in this manual is a unified command established on an area basis (JCS Pub 2). The commander organizes the unified command in a manner consistent with the fulfillment of the mission and according to the characteristics and Service identity of the forces assigned.

b. The organization of the Military Service forces in a theater is usually unilateral along Departmental lines; thus, each component force (Army, Navy, or Air Force) has its own organization for providing combat service support. Exceptions occur when support is otherwise provided for by agreements or assignments involving common, joint, or cross-Servicing at force, theater, Military Department, or Department of Defense level.

c. A component command consists of the component commander and the individuals, or-

ganizations, and installations under his military command that are assigned to the operational command of the unified command commander. Other individuals, organizations, and installations may operate directly under the component commander in his Service role and contribute to the mission of the unified command as appropriate.

d. Each component commander is responsible for making recommendations to the theater commander (unified command commander) on the proper employment of his component and for accomplishing such missions as the commander of the unified command assigns. Each component commander communicates directly with his Service chief (Chief of Staff, U.S. Army, for Army component commanders) on uni-Service matters relating to combat service support, personnel, training, communications, doctrine, combat developments, and other mat-

ters of uni-Service interest. When intelligence matters are of uni-Service interest, the component commander communicates directly with his Service chief.

e. The component commander is responsible for—

(1) Internal administration and discipline, except where affected by joint interest or the responsibilities of the unified commander.

(2) Training in own Service and joint doctrines, techniques, and tactics.

(3) Combat service support functions normal to the component, except as higher authority otherwise directs.

(4) Service intelligence matters.

f. The component commanders operate their combat service support systems in accordance with Departmental instructions, subject to the directive authority of the theater commander in the field of logistics (JCS Pub 2). This directive authority of the theater commander insures effectiveness and economy of operations and prevents or eliminates unnecessary duplication of facilities and functions among the Service components. It includes review of budgets and requirements of the Service components and coordination of priorities and programs to use supplies, facilities, and personnel effectively and provide a balanced effort in the furtherance of the theater mission. The theater commander normally exercises this authority through the service component commanders by—

(1) Acquisition, storage, movement, distribution, maintenance, evacuation, and disposition of materiel.

(2) Movement and evacuation of personnel.

(3) Acquisition or construction, maintenance, operation, and disposition of facilities.

(4) Acquisition or furnishing of services.

2-9. Theater Army Commander (Army Component Commander)

a. Paragraph 2-8*d* and *e*, delineate certain of the theater army commander's responsibilities as a component commander. He also is responsible for broad policies pertaining to U.S. Army Forces in the theater and for the command of all U.S. Army Forces assigned to his command. Normally, the theater army com-

mander does not have responsibility for combat operations or operational control of combat forces. If the theater army commander becomes the commander of a combined command, he is no longer theater army commander.

b. In a theater of operations the strategic and tactical direction of U.S. Army groups (when present) and field armies normally originates from headquarters other than U.S. Theater Army. Usually, the unified command (theater) commander (or combined command commander when a combined command is established) exercises direct operational command over these U.S. Army groups and/or field armies. Also, the theater commander may establish a subordinate unified command headquarters through which operational command would be exercised. In addition, the theater commander normally exercises direct operational command over other U.S. Army Forces required to carry out the theater operational mission. Thus, the U.S. Theater Army headquarters is primarily an administrative and logistical headquarters for the support of U.S. Army Forces and other forces and activities as directed. The theater army commander normally commands all U.S. Army Forces assigned to the theater except those assigned to a combat role, to a subordinate unified command, to a uni-Service command reporting directly to the theater commander, or to a joint task force. The theater army commander exercises command less operational control of these excepted U.S. Army Forces. The theater army commander designates the specific Army units to be assigned to a theater subordinate command. Such units revert to the command of the U.S. Theater Army commander when the theater commander so directs. During peacetime, the theater commander normally exercises operational command of assigned U.S. Army Forces through the theater army commander.

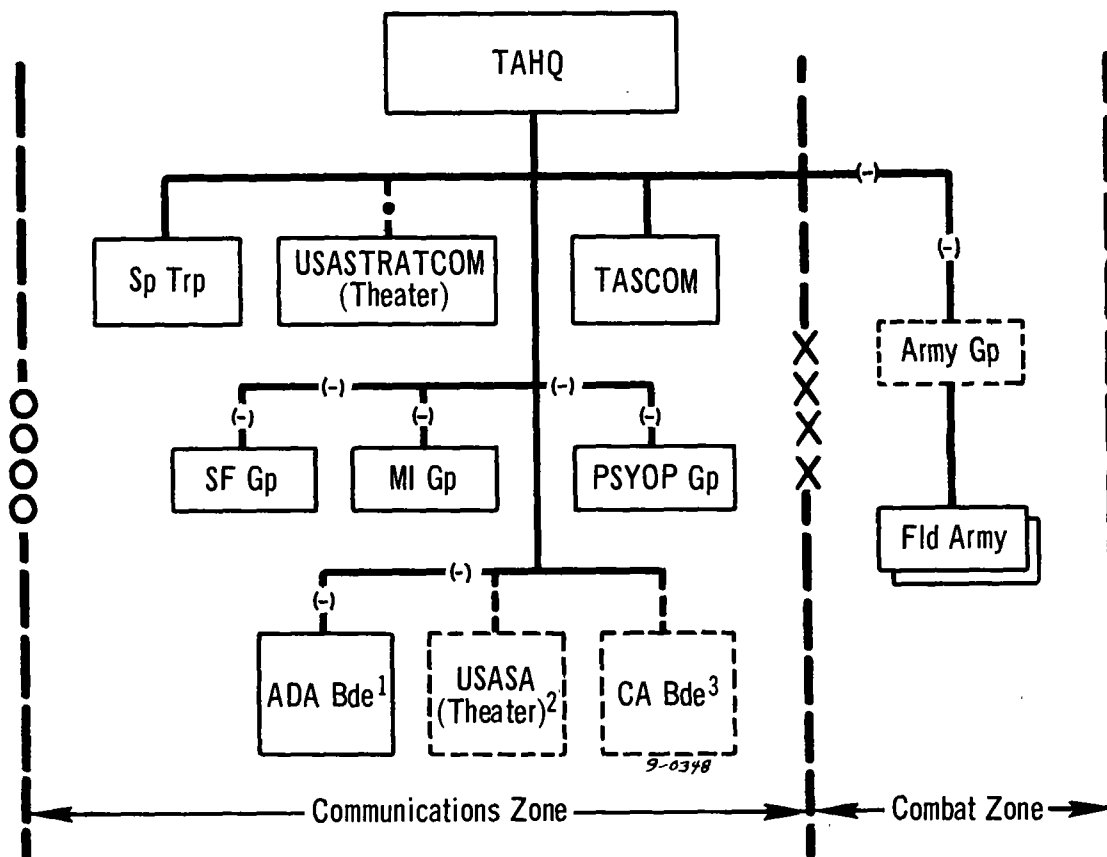
c. Figure 2-9 illustrates a typical theater army organization and the command relationships discussed in *b* above. The TASCOM and the field army are on the same level. The commanders of both organizations have responsibility for all the combat service support means needed to perform their respective missions in the combat zone and the COMMZ, subject to

policy guidance and directives of the theater army commander.

d. The combat service support mission of U.S. Theater Army headquarters is to—

(1) Organize and operate the necessary services for combat service support of U.S. Army Forces in the theater during peacetime and wartime. This entails long-range planning,

estimates of personnel and logistic requirements, and efficient use of means. It requires close liaison with collateral and higher headquarters, the TASCOC headquarters, and other commands directly subordinate to U.S. Theater Army headquarters. The theater army commander normally assigns his territorial responsibility to subordinate commanders.



LEGEND

--- As required.

— Command.

—●— Operational control.

—(-)— Command during peacetime. Command less operational control normal during wartime.

¹May be designated as ADA command.

²Provides support in accordance with AR 10-122.

³May be designated a CA command.

Figure 2-9. Theater army organization (large theater of operations).

(2) Supply common items and common services to Air Force and Navy elements in the theater as provided for by agreements or assignments.

(3) Provide combat service support to civilian and other agencies and forces as directed.

(4) Allocate critical and regulated items of supply as directed by the theater commander.

e. The theater army commander retains overall control of combat service support operations to insure uniformity of the support effort in the combat zone and the COMMZ. He applies control through promulgation of appropriate policies, mission directives, broad planning and program guidance, allocations, and priorities for accomplishing the theater army mission. The theater army commander normally delegates authority and responsibility for implementing and accomplishing the foregoing to the TASCOM and the field armies for their respective missions. This includes the delegation of authority to the TASCOM for throughput shipments originating in the TASCOM area.

f. In some conflicts, theaters of operations may be smaller than that implied in *d* above. In such cases, the Army component of the theater may consist of a single field army or a smaller force. The concepts of organization, mission, and functions outlined above are applicable to the smaller theater, modified as necessary to satisfy the requirements of a particular theater. When a field army or a corps is the major Army element of a theater, its normal preoccupation with the combat mission may preclude the assignment of theater army re-

sponsibilities. In this case, a theater army organization of appropriate size is usually established. When either the field army or corps headquarters has theater army responsibilities, it is, in effect, the Army component command.

2-10. Theater Navy Commander

a. Responsibilities of the theater navy commander for theater navy forces generally parallel those of the theater army commander for theater army forces in peacetime. However, in wartime he normally retains operational control of all his forces.

b. Navy combat forces with logistic elements formed in a task organization are assigned to the theater from a numbered fleet. The theater navy commander exercises command through the commander of the Navy combat forces. Navy forces assigned to the theater are structured for the task anticipated.

2-11. Theater Air Force Commander

a. Responsibilities of the theater air force commander for theater air force forces generally parallel those of the theater army commander for theater army forces in peacetime. However, in wartime he normally retains operational control of all his forces.

b. Allocation of Air Force combat forces to the theater is on the basis of the assigned mission. Air Force logistic elements in the theater down to depot level remain under the command and control of the Air Force Logistics Command in the CONUS but are immediately responsive to theater air force needs.

c. Besides theater air force elements, other Air Force elements used for strategic operations may be present in the theater under the operational direction of the Department of Defense or a specified command.

Section IV. ORGANIZATIONS IN THE COMMZ

2-12. TASCOM

a. *General.* For details on the TASCOM, see FM 54-7.

b. *Mission.* The TASCOM provides combat service support to Army forces in a theater of operations and to other forces as designated. Services provided include—

(1) General support to the field army.

(2) Direct and general support to the COMMZ.

(3) Rear area protection (RAP) in the COMMZ. In addition, the theater army commander assigns to TASCOM responsibility for area emergency warning in the COMMZ.

c. *Functions.* Combat service support functions performed by the TASCOM include per-

sonnel and administrative service (para 15-1), civil affairs (CA), construction, maintenance, supply, transportation, and field services.

d. Organization.

(1) In addition to the organization shown in figure 2-9, the TASCOM supports the following forces:

- (a) U.S. Army elements of joint, unified, or combined headquarters and units, as directed.
- (b) Headquarters, theater army.
- (c) Headquarters, army group (when used).
- (d) TASCOM units.
- (e) U.S. Army Security Agency (USASA) units.
- (f) Other U.S. Army units located in or passing through the COMMZ.
- (g) Other U.S. Military Services, U.S. Government agencies, allied military forces, and civilian populations so designated by the theater army commander.

(2) The TASCOM is normally organized with six subordinate major commands, as shown in figure 2-10. Five of these commands (personnel, medical, supply and maintenance, transportation, and engineer) provide general support to the combat zone and the COMMZ. The medical command also furnishes direct support in the COMMZ. The sixth command, the ASCOM, provides direct support (less medical, and ammunition) and area emergency warning RAP in the COMMZ.

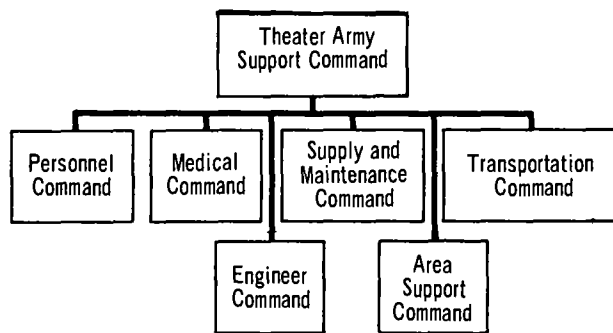


Figure 2-10. Organization of a TASCOM.

e. Relationships With Other Headquarters.

(1) *With theater army.* Theater army headquarters provides mission-type orders to the TASCOM for the conduct of theater army activities, together with necessary policies,

priorities, allocations, directives, and guidance for execution of assigned missions. Theater army headquarters formulates procedures and guidance for the establishment of appropriate channels of communication between the CONUS and the TASCOM; between the TASCOM and other Services, allied forces, and governments; and between the TASCOM and the field army. Theater army headquarters delegates to the TASCOM responsibility for the conduct of combat service support and RAP operations in the COMMZ. The TASCOM communicates directly with COMMZ agencies and the field army in the conduct of operations, within policies stated by theater army. Theater army headquarters assigns the TASCOM responsibility for preparing detailed combat service support plans, directives, and guidance affecting the theater army as a whole. Upon approval by theater army, such plans, directives, and guidance are issued in the name of the theater army commander.

(2) *With theater headquarters when a theater army headquarters is not used.* The U.S. Army element of a joint, unified, or combined staff can provide the direction of TASCOM support of U.S. Army combat forces that is normally provided by a theater army headquarters.

(3) *Assumption of TASCOM headquarters functions by theater army headquarters.* The organization of the TASCOM permits theater army headquarters to assume TASCOM headquarters functions. Each of the TASCOM commands operates with minimum direction from TASCOM headquarters.

(4) *With field army.* Regardless of the command structure within theater army, the TASCOM must receive quantitative requirements for support from the field army stated in terms of what supplies and equipment are needed, where and when they are needed, and how they must arrive. The TASCOM assists the field army in formulating these requirements and supports field army requirements. The field army and the TASCOM are on the same command level under theater army; however, for routine operations the TASCOM and TASCOM subordinate commands maintain

continuing working relationships through liaison and technical channels.

(5) *With USASTRATCOM (theater).* USASTRATCOM (theater) provides and operates the theater army communication system (TACS) and provides the integration of the TACS with the Defense Communications System worldwide network. USASTRATCOM (theater) provides on an attachment basis the signal operations companies that operate the internal communications of the major headquarters and area-oriented units of the TASCOT as part of the TACS command and area subsystems in the COMMZ. TASCOT provides combat service support to USASTRATCOM (theater) in accordance with the overall support agreement established between the STRATCOM and theater army commanders.

(6) *With the military intelligence group theater army.* The group provides military intelligence support to the theater army by operating in direct support of the theater army headquarters and in general support of military intelligence units assigned to the field army and TASCOT.

(7) *With allied or indigenous forces.* The TASCOT provides combat service support as directed by theater army. Once the type of support to be provided is determined, the TASCOT assists allied and indigenous forces in formulating the support required and insures rapid reaction to demands in much the same manner that support is provided the U.S. field army.

(8) *With all organizations supported.* The TASCOT provides combat service support as designated by theater army. Theater army directs the degree of authority that the TASCOT will exercise over other organizations in the COMMZ in performing area emergency warning, and RAP activities.

2-13. Subordinate Commands of TASCOT

a. *Personnel Command.* This command provides general support personnel, administrative, fiscal accounting, morale (chaplain, postal, and special services), internment (prisoner of war and civilian internee), custodial (stockade and rehabilitation training), crime laboratory, and graves registration services to a theater of op-

erations. For detailed information, see FM 29-6.

b. *Medical Command.* This command provides medical services and medical supply to a theater of operations, including direct support medical services in a COMMZ.

c. *Transportation Command.* This command provides transportation and movement services to a theater of operations.

d. *Supply and Maintenance Command.* This command provides general support supply and maintenance services to U.S. Forces and to other forces in a theater of operations as directed.

e. *Engineer Command.* This command provides general construction support to the field army and to Army, Air Force and other designated agencies in the COMMZ; general topographic support to the theater army and other designated agencies; and direct topographic support to Army units and other designated agencies in the COMMZ.

f. *ASCOM.* This command provides direct support services (less medical, cryptologic, and ammunition) to the TASCOT, to units passing through or located in the COMMZ, and to such other forces and agencies that the TASCOT commander directs. The ASCOM is also responsible for the planning, coordination, and execution of area emergency warning, and RAP operations in the COMMZ.

2-14. USASTRATCOM (Theater)

This command extends communications from the theater rear boundary, where access to the Defense Communications System (worldwide) is available, into army group and field army areas, where communications access points are established as area communications centers. It also provides the command and area subsystems in the COMMZ. Signal units of USASTRATCOM (theater) are attached to major headquarters and area-oriented units of the TASCOT. USASTRATCOM (theater) is under the operational control of the theater army commander and receives direct and general combat service support from the TASCOT in accordance with the support agreement established between the USASTRATCOM and theater army commanders.

2-15. Civil Affairs Brigade

The theater army commander conducts civil affairs (CA) operations when and as directed by the theater commander. The theater army commander may be delegated CA authority for the COMMZ or for the theater. A CA brigade may be assigned or attached to a theater army, TASCOM, or ASCOM. This brigade receives combat service support from the TASCOM.

2-16. Military Intelligence Group, Theater Army

This group is assigned to theater army. It operates in direct support of the theater army headquarters and in general support of the

military intelligence units assigned to the field army and TASCOM, and assists in performing those intelligence activities for which the theater army headquarters normally retains centralized control. The TASCOM provides combat service support to this group.

2-17. Other Major Units

The TASCOM provides combat service support to the other organizations shown in figure 2-9 and not discussed above, and to other Military Services, allied military forces, local governments, and civilian populations as directed by the theater army commander.

Section V. ORGANIZATIONS IN THE COMBAT ZONE**2-18. Army Group**

a. The employment of army groups may be necessary in a large theater of operations where the land force structure comprises several field armies. In small theaters, the largest land force element may be a single field army or an independent corps.

b. The army group directs the strategic and tactical operations of two or more field armies. It functions under the operational command of the theater commander. In a combined theater, it may function under the operational control of a senior combined command headquarters.

c. The TASCOM supports the army group and its subordinate elements.

d. The army group normally does not operate combat service support installations. It does, however—

(1) Establish priorities for supplies for its assigned and attached troops.

(2) Establish priorities for movements.

(3) Establish priorities for the allocation of replacements to major subordinate commands.

(4) Allocate available service troops to major subordinate commands.

(5) Normally control allocation of ammunition to major subordinate commands and may control allocation of other items and services in accordance with assigned tactical missions.

(6) Determine the adequacy of support to

subordinate units by supporting theater army commands.

(7) Estimate overall combat service support troop and resupply requirements to support operations and make recommendations to the theater army commander for the allocation of appropriate means.

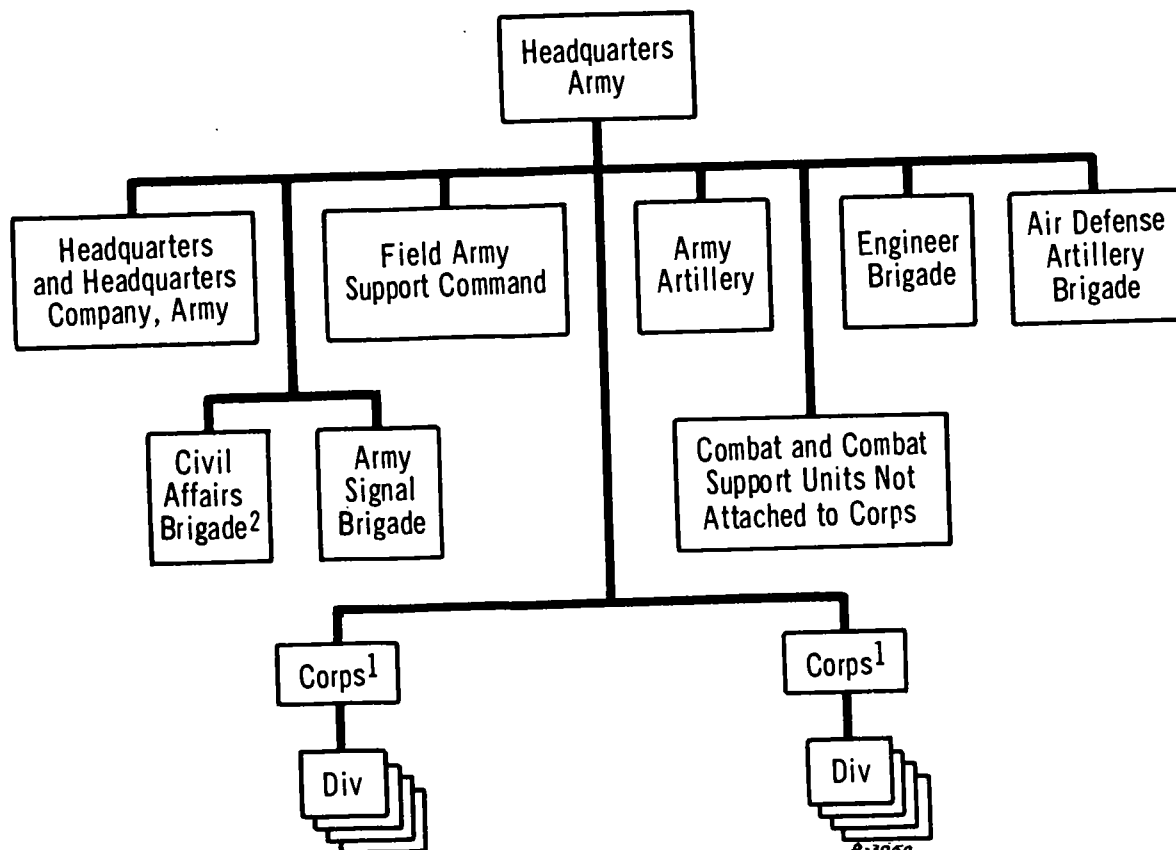
(8) Assign territorial responsibilities to subordinate field armies.

(9) Supervise and coordinate the CA activities of subordinate and supporting units.

2-19. Field Army

a. The field army commander is responsible to the army group commander, theater commander, or combined command commander for operations and to the theater army commander for combat service support operations in the field army. In a combined theater, the field army commander may be responsible to a U.S. Army group commander for combat, combat support, and combat service support operations in the field army, or he may be under the operational command of a senior combined command headquarters and receive combat service support from U.S. Theater Army.

b. The field army is the largest self-contained U.S. Army organization that has combat, combat support, and combat service support functions. It consists of a headquarters; a FASCOM; a variable number of corps and divisions; and other units, such as artillery and signal.



¹Figure 2-13 shows the organization of a typical corps.

²May be assigned or attached to a field army or a FASCOM.

Figure 2-11. Organization of a typical field army.

c. The field army has no fixed organization. Determinants in the numbers and types of corps, divisions, and other combat supporting elements are the mission, availability of forces, availability and use of nuclear weapons, terrain, climate, and probable hostile forces. Figure 2-11 shows the organization of a typical field army based on two corps of four divisions each, less details of combat service support elements.

d. The field army commander is responsible for the organization and operation of services necessary for the immediate support of units in the field army. This requires planning, preparation of estimates of combat service support needs, and liaison with other major commands.

2-20. FASCOM

a. *General.* For details on the FASCOM, see FM 54-3.

b. *Mission.* Within assigned responsibilities, the FASCOM provides combat service support to a field army (and other forces and agencies as designated). The FASCOM is also responsible for RAP for the field army service area.

c. *Functions.* Combat service support functions performed by the FASCOM include personnel and administrative services, civil affairs, maintenance, supply, transportation, and field services.

d. *Construction Function.* The FASCOM does not have a construction function; however, provision is made for attachment of units to provide this service when required. Nor-

mally, construction support within the combat zone is provided by the engineer combat brigades assigned to the corps and field army.

e. Organization. The FASCOM normally supports a field army with a headquarters and associated control centers (inventory control center (ICC), movements control center (MCC), and maintenance management center (MMC)). Major FASCOM commands normally include two or more corps support brigades, an army support brigade, and three additional brigades—medical, military police, and transportation. A civil affairs brigade may be assigned or attached. Field army headquarters may attach an engineer organization to the FASCOM. Figure 2-12 shows the organization of a typical FASCOM.

f. Relationships With Other Headquarters.

(1) *With field army.* Field army headquarters issues mission-type orders to the FASCOM. The FASCOM develops detailed plans, policies, and directives for combat service support in conformance with field army policies, directives, and guidance and performs assigned missions.

(2) *With corps.* The FASCOM is on an equal command level with the corps. The corps headquarters does not provide combat service support to units in the corps area or to divisions. The FASCOM furnishes this support, maintains coordination with the corps, and assists the corps in RAP activities.

(3) *With supported divisions and nondivisional units.* The FASCOM provides general combat service support to divisions and direct and general combat service support to nondivisional units. The FASCOM also provides backup direct support to divisions when required.

(4) *With field army engineer and signal brigades.* The FASCOM forwards construction and communications requirements to field army. Priorities established by field army for these requirements are the basis for mission orders to engineer and signal units in support of the FASCOM.

(5) *With TASCOM.* The FASCOM maintains a close working relationship with the TASCOM. Control centers of the FASCOM

place requirements on their counterpart centers in the TASCOM. Coordination of interzonal movements of replacements, units, and supplies requires placement of TASCOM liaison personnel at critical control points in the field army.

(6) *With other Services, other national forces, host nations, and host nation military organizations.* Within the policies of field army, the FASCOM establishes and maintains necessary working relationships. The FASCOM may use the resources and capabilities of other U.S. Services and forces of other nations in providing combat service support to the field army. The FASCOM also may support these forces in furtherance of the field army mission.

2-21. Corps

a. The corps is primarily a tactical unit of execution and maneuver and is not normally in the combat service support channel between divisions and field army. The corps is essentially a tactical organization of the combined arms employing a variable number of divisions, brigades, and combat support units. Figure 2-13 shows the organization of a typical corps.

b. Because the corps is primarily a tactical organization, comparatively few combat service support troops are on the usual corps troop list. Normally, the corps would be given control over combat service support units only when the situation prevents the FASCOM commander from exercising adequate control.

c. The corps commander normally influences combat service support only to the extent necessary to assist operations of the corps. His actions include—

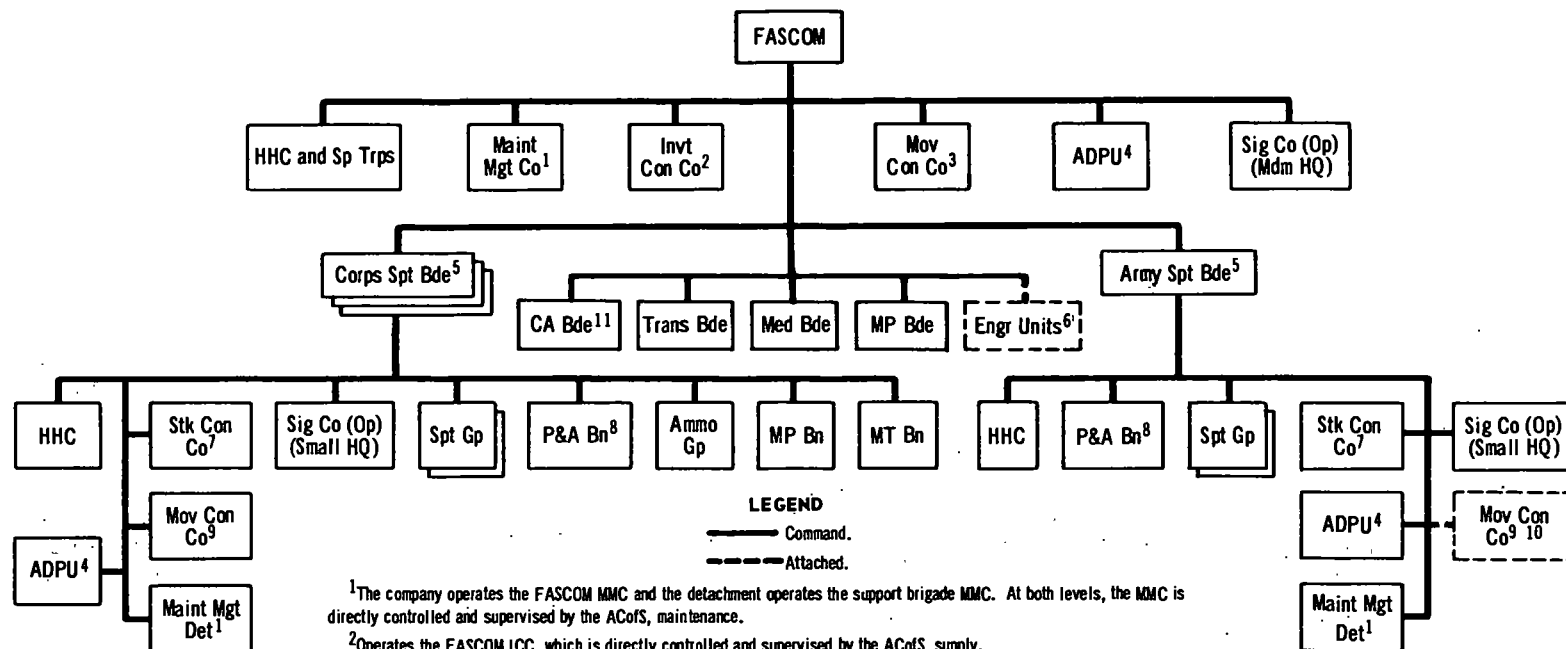
(1) Recommending to the support brigade commander measures concerning support of units attached to the corps.

(2) Keeping informed of the combat service support status of corps troops and attached divisions.

(3) Controlling and allocating ammunition, and other items when required.

(4) Establishing the rear boundaries of divisions attached to the corps.

d. For independent corps operations, necessary combat service support elements augment the corps support brigade and the brigade



¹The company operates the FASCOM MMC and the detachment operates the support brigade MMC. At both levels, the MMC is directly controlled and supervised by the ACofS, maintenance.

²Operates the FASCOM ICC, which is directly controlled and supervised by the ACofS, supply.

³Operates the FASCOM MMC, which is directly controlled and supervised by the ACofS, movements.

⁴Provides ADPE service for the FASCOM ICC, MMC, and MCC and for the corps and army support brigade stock control center (SCC), MMC, MCC (corps support brigade only, except when authorized at army support brigade), and personnel services center (PSC). The ADPU provides personnel to operate the Automatic Data Processing Center (ADPC) that functions directly under the supervision of the ACofS, comptroller, for day-to-day operation; however, the chief of staff establishes and controls priorities for use of the facility. The ADPC is in no way involved in combat service support management functions.

⁵The organization of support brigades may not be identical because structuring is based on assigned missions. The FASCOM assigns group headquarters, battalion headquarters, and operating units to brigades based on assigned missions. Brigade assigns battalions and operating units to support groups based on assigned missions. Groups assign units to battalions based on assigned missions. Generally, corps support brigades are identical down to support group level.

⁶Attached when required.

⁷Operates the support brigade SCC, which is directly controlled and supervised by the ACofS, supply.

⁸Operates the support brigade PSC, which is directly controlled and supervised by the ACofS, personnel.

⁹Operates the support brigade MCC, which is directly controlled and supervised by the ACofS, movements.

¹⁰If required. The FASCOM movements control company may perform these functions for the army support brigade.

¹¹May be assigned or attached.

Figure 2-12. Organization of a typical FASCOM.

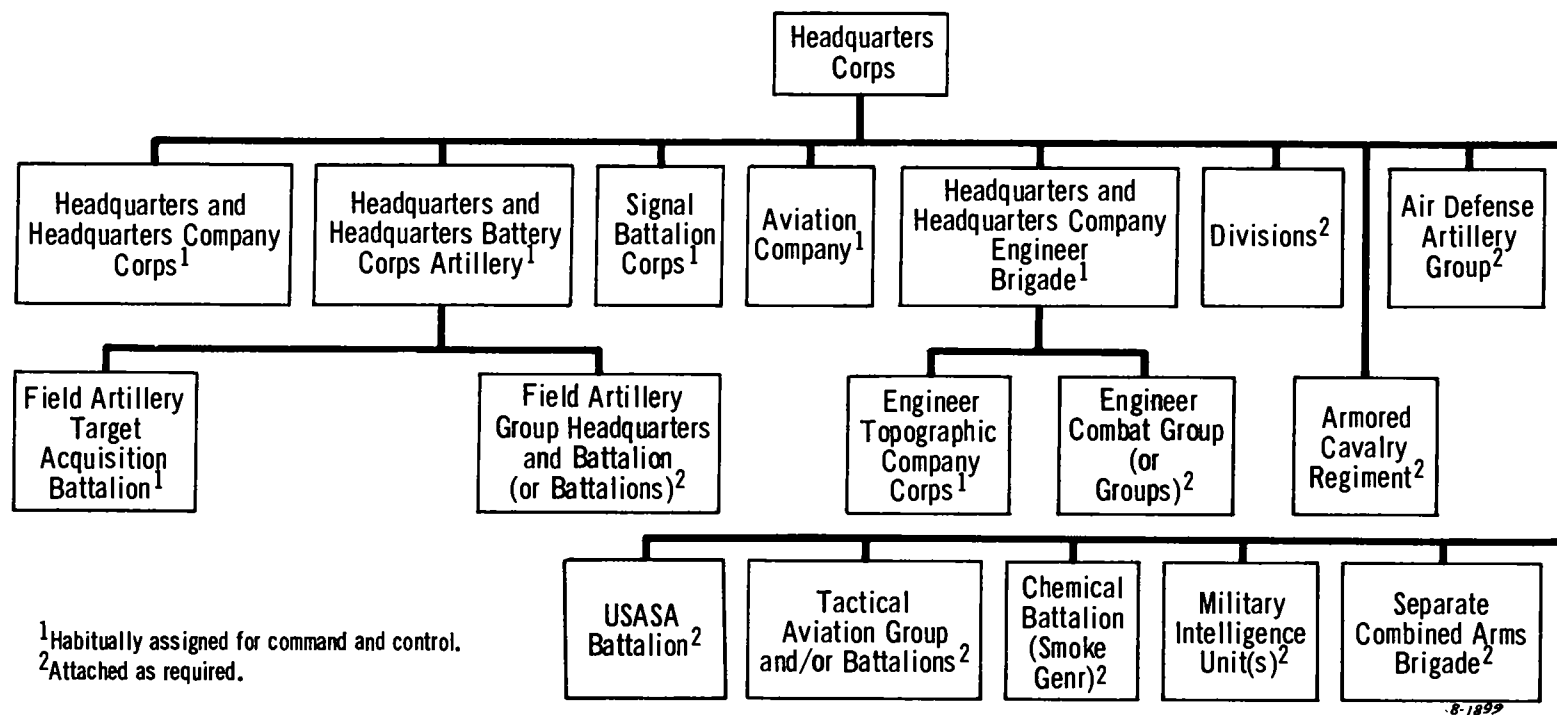


Figure 2-18. Organization of a typical corps.

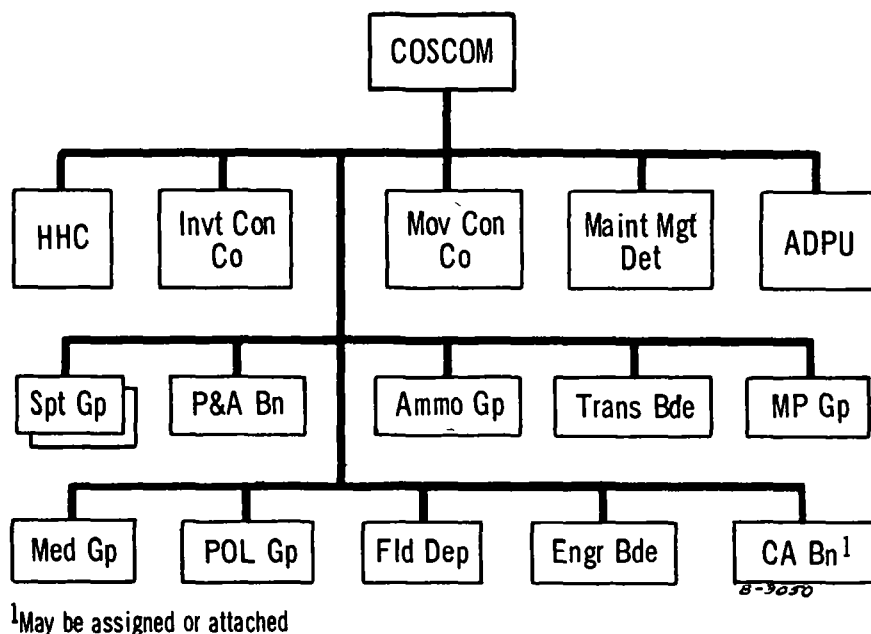


Figure 2-14. Organization of a typical COSCOM (supporting a three-division independent corps).

functions as the corps support command (COSCOM). In such circumstances, the corps normally operates directly under a headquarters higher than field army or as part of a joint task force.

2-22. COSCOM

a. The COSCOM provides combat service support for an independent corps force. The COSCOM is assigned to and receives its direction from the corps commander. The basis of allocation is one COSCOM per independent corps. The COSCOM exercises command, control, and supervision of all combat service support units assigned or attached for support of the corps force.

b. The COSCOM provides combat service support to Army forces in a theater of operations and to other forces and agencies as designated. When an independent corps is the only land force in the theater, it has the status of a theater army, with area responsibilities encompassing the theater base. The COSCOM is responsible for all combat service support, including theater base activities.

c. The corps support brigade of the FASCOM provides the nucleus for the COSCOM.

Sufficient combat service support elements augment this nucleus to enable the corps to conduct independent operations. The COSCOM has a headquarters, associated control centers, and assigned or attached operating units. The COSCOM headquarters is similar to that of a corps support brigade, except that an assistant chief of staff, CA, is added from TOE 41-500. Staff functions are similar to those of the FASCOM headquarters. The COSCOM is a readily structurable organization and can support a variety of forces by the addition or the deletion of operating units. The operating units in the COSCOM are generally the same type as those that support a FASCOM or a TASCOT. FM 54-4 depicts the organization, capabilities, and operation of these operating units. Figure 2-14 shows the organization of a typical COSCOM for support of a three-division independent corps.

2-23. Division

a. The division is the basic unit of the combined arms and services of the Army. It is the smallest unit in the Army in which all the arms and services are represented in sufficient

strength to permit large-scale combat operations.

b. The DISCOM usually deals directly with the supporting corps support brigade and other FASCOM support brigades on combat service support matters. Exceptions to the foregoing include the control and allocation of ammuni-

tion and other critical supply items (as the situation requires) and the establishment of division rear boundaries. These matters require coordination through command channels rather than through combat service support channels.

c. FM 54-2 and FM 61-100 contain additional details on the division and the DISCOM.

CHAPTER 3

PLANNING

Section I. COMBAT SERVICE SUPPORT PLANNING

3-1. General

FM 101-5 discusses types of planning and staff organization for planning.

3-2. Coordination

a. Close coordination between combat and combat service support planning is essential. Combat service support may decisively influence combat operations.

b. Planning for combat and combat service support is a concurrent action. Combat service support planners must have information sufficiently in advance of a combat operation to arrange for combat service support. This information consists of strategic and tactical planning data needed for the preparation of practicable plans.

c. The principle of coordination between the combat and combat service support planners of the Army in the field necessarily extends to the Department of the Army staff level (e.g., Deputy Chief of Staff for Logistics, Deputy Chief of Staff for Personnel, Deputy Chief of Staff for Military Operations, Comptroller of the Army, Assistant Chief of Staff for Force Development, The Surgeon General) as well as to the U.S. Army Materiel Command. These planning elements establish and maintain in peacetime a series of combat service support

plans to support automatically Army forces in the field for varying lengths of time.

3-3. Enemy Capabilities for Nuclear, Biological and Chemical Operations

Planners evaluate the impact of enemy capabilities for nuclear, biological, and chemical (NBC) operations (para 1-5) on the mission of the command. With the increased range and accuracy of delivery systems, no area in a theater of operations is free from the threat of attack. The commander determines the action he will take to avoid or reduce the effects of NBC weapons after he considers the mission of the command, the means available to accomplish the mission, and enemy capabilities. These factors directly influence the operation plan and layout of the combat service support areas. The objective is to reduce risks without producing inefficient operations and wasteful use of manpower and supplies. Chapter 7 discusses rear area protection planning.

3-4. Planning Sequence and Sample Formats for Plans

FM 101-5 discusses the sequence of combat service support planning. FM 101-5 and JCS Pub 2 contain sample formats of major planning documents and the sequence of their preparation.

Section II. TROOP PLANNING

3-5. General

a. Troop planning includes estimating troop requirements to accomplish a mission. Such planning normally conforms to the troop ceiling authorized the theater. A subordinate command conforms to the troop ceiling imposed by a superior headquarters. The number of per-

sonnel authorized a command includes personnel in tables of organization and equipment (TOE) units and those in the bulk personnel allotment.

b. A troop list is a listing of specific military units or individuals. A troop list usually contains the designation of each unit in a com-

mand's area or of each unit serviced by a command's automatic data processing unit. Such a list may include units located in an area but not assigned to the command, such as attached allied units. (See the definition of "troop basis," AR 320-5.)

3-6. Principles of Troop Planning

The troop planner must continuously analyze requirements. The following principles apply:

- a. The force must meet its operational requirements.
- b. The command structure must be sound.
- c. The force must consist of the minimum-essential manpower and equipment to accomplish the mission.

3-7. Variables That Affect Combat Service Support Troop Planning

Variable factors that influence combat service support troop requirements include—

- a. Numbers and types of troops to be supported, their mission, and the extent of combat service support to be provided.
- b. Quantity, types, and distribution of equipment.
- c. Construction requirements.
- d. Climate and terrain.
- e. Status of local resources in the area of operations.
- f. Size of the area of operations.
- g. Attitudes, availability, and capabilities of local civilians and prisoners of war (PW).
- h. Availability, capabilities, and limitations of combat service support units.
- i. Enemy capabilities.

3-8. Basic Steps in Troop Planning

The following are essential to sound troop planning:

- a. Determination of tasks.
- b. Determination of workload.
- c. Selection of types of units with required capabilities.
- d. Calculation of number of units required, including type B units (para 12-6c).
- e. Provisions for command and control.

3-9. Troop Ceiling

Within the troop ceiling, planners coordinate troop requirements to achieve a balanced force

that can perform the mission. Troop ceilings are fixed limits of troop strength. Therefore, a change in the requirements of one agency requires adjustments among other agencies. When, as a result of detailed planning, a change is justified, the Department of the Army may change a troop ceiling.

3-10. Phases of Troop Planning

Troop planning has three phases—estimation, calculation, and modification. The first phase requires few, if any, tangible figures. Each successive phase uses more accurate planning data until a balanced, sound troop list evolves. Fast-moving warfare often requires merging various aspects of the three phases. FM 101-10-1 contains a description of the three phases.

3-11. Flexibility in the Selection of Combat Service Support Units

a. The company generally is the basic organizational unit for combat service support organizations. With few exceptions there are no fixed organizations above this level. Normally, the company is self-sufficient in that it possesses the necessary organizational administrative and logistic capability. Companies can provide elements to support units for short periods of time. Cellular detachments and teams provide special capabilities when required and receive any organizational support necessary from the larger units to which they are assigned or attached. Units are organized to function, to the maximum degree, in either the combat zone or the communications zone. Headquarters units serve as command and control elements for assigned and attached units that are selected in the required number and with the necessary capabilities to best meet the operational situation.

b. Flexibility in combat service support organizations is essential to meet the full range of tasks that may arise. Using the company as the basic unit, the troop planner designs the combat service support structure to accomplish the support mission in the most efficient and responsive manner. Use of company-sized units in this manner is known as the "building block" principle and is a fundamental tech-

nique in developing combat service support organizations.

c. An important application that illustrates the building block principle is found in the support brigade. Support brigade operations, organization, and capabilities are the composite of the combat service support activities performed by the separately organized TOE units that may be assigned or attached. In general, each of the various headquarters, company, detachment, and cellular organizations is designed to perform a given workload in specific areas of combat service support. These separate units, with proper adjustment to insure self-sufficiency, can be used to support organizations of less than division size. Battalion, group and brigade headquarters are added when the combat service support structure expands. Principal examples of support brigade flexibility include—

(1) *As part of a FASCOM.* The support brigade can function to support a corps (corps support brigade) or troops in the field army service area (army support brigade). The organization of the brigade can be varied to respond to the needs and size of the supported force. For example, the organization of the corps and army support brigades shown in figure 2-12 is for a typical field army of three corps of four divisions each. Different organizational arrangements for the field army and corps require that the support brigade structure be varied accordingly.

(2) *As a COSCOM.* The corps support brigade serves as the nucleus for the COSCOM. For a separate corps corresponding in status to a field army, the brigade assumes the role of FASCOM, by adding medical, civil affairs, transportation, and military police units, as well as specialized units of the army support brigade. For an independent corps correspond-

ing in status to a theater army, units normally employed in the theater base or communication zone are added to the COSCOM of a separate corps.

(3) *As a Division Support Brigade.* The support brigade can be structured to support a separate or independent division. The support brigade structure for a separate or independent division parallels that described above for the separate and independent corps.

(4) *In Support of a Task Force.* The support brigade is structured to provide the required combat service support. The brigade is normally assigned or attached to the task force headquarters, to include operational control authority. Support missions given to the brigade for units outside the task force are received through command channels.

d. The building block principle illustrated above for the support brigade represents the general approach to be used by the troop planner in developing any combat service support troop list. Example troop lists are found in FM 54-7, FM 54-4, and FM 54-3.

3-12. Changes in Troop List

An organization designed to meet specific requirements often needs modification as operations progress or as plans further develop. It may become necessary to add new units and delete old ones, or units may require additional personnel and equipment. Operational experience may dictate changes in TOE. Recommendations for changes in TOE pass through command channels. If the recommended changes do not apply Army-wide and require command assets only, a major commander may authorize a modification table of organization and equipment (MTOE) for a particular unit. If the MTOE exceeds the major command assets, the Department of the Army gives approval.

Section III. BASE DEVELOPMENT PLANNING

3-13. General

a. Base development is the acquisition, construction, improvement, or expansion of facilities of an area to support military operations, using, to the extent feasible, the resources available in the area. It provides the framework for combat service support of forces de-

ployed in the area, in accordance with operational plans, including strategic plans and contingency plans. The Joint Chiefs of Staff may authorize base development during peacetime or require planning for construction after the onset of hostilities.

b. The purpose of base development planning

is to determine facility requirements to support operations in an actual or potential area of operations; to identify the facilities that are available and which resources can eliminate deficiencies; and to establish a program for providing the required facilities and operating personnel to support the mission.

c. The theater commander is responsible for base development planning and base development in the theater. Lower echelons of command in the theater perform detailed planning concurrently under the direction of the theater staff. The theater commander reconciles conflicting requirements of agencies contributing to the plan and insures that means are available to carry out the plan.

d. The theater commander may assign responsibility for development of a base to the commander of the theater Service component that has predominant interest.

e. Base development proceeds concurrently with operational planning for potential areas of operations. In long-range planning, combat service support requirements may necessitate the acquisition of base areas overseas to insure support of initial deployment of combat forces and to provide facilities for stockpiling supplies to support initial combat operations. Success or failure in acquiring rights to overseas bases may influence operational plans.

f. U.S. Forces may be part of a combined command under plans that the combined staff of a standing treaty organization prepares. Base development plans must consider the combined plan, as well as agreements regarding combat service support of or by allied forces and the resources and support capabilities of allied nations in whose territory operations may be conducted.

g. Base development in an area of operations may start prior to, or concurrent with, the initiation of combat operations.

(1) Prior to the initiation of combat operations, development of the base may begin in anticipation of hostilities and the requirement to deploy combat forces. Measures include establishment of supply stockpiles and deployment of combat service support forces in sufficient numbers to maintain stocks and support the initial deployment of combat forces.

(2) Concurrent with combat operations in an area, there may be sequential development of division, corps, and field army base areas and establishment of a communications zone when there is sufficient territory for the designation of a field army rear boundary.

h. The base development plan, when approved—

(1) Informs all concerned of the commander's intent in the construction and operation of the base.

(2) Provides a basis for determining the number, kind, and dates of arrival of troops to construct and operate installations in the base.

(3) Provides a basis for theater supply agencies to requisition and ship supplies, equipment, and troops in the proper amount and the priority to build and equip the base.

(4) Schedules, in order of priority, the construction of base facilities.

(5) Establishes operational dates for such key facilities as airfields, hospitals, water terminals and other transportation facilities, communications centers, and depots.

(6) Allocates space and facilities to the principal agencies and installations.

3-14. Responsibilities for and Purposes of Base Development Planning

a. The theater commander is responsible for base development planning in the theater. The purpose of this planning is to establish base facilities in objective areas to support the strategic mission. Various echelons conduct their planning concurrently under the direction of the theater commander. The theater commander reconciles conflicting requirements of agencies involved in the execution of the plan and insures that means are available to execute the plan.

b. The theater staff may enter the detailed planning of base development. Normally, however, this is a responsibility of lower echelons of command.

c. The theater commander may assign responsibility for development of a base to the theater army, navy, or air force commander whose interest is exclusive or predominant.

3-15. Planning Procedures

Three general phases, each culminating in a

specific document, make up the sequence of base development planning. These documents are—

a. The Base Development Study. During the early or strategic phase of the planning cycle, theater or Service headquarters undertake studies of potential areas for base development. Upon receipt of instructions to conduct a specific operation, theater headquarters prepares a detailed base development study to cover the operation. The purpose of the study is to present supporting details and recommendations on the site that will best support the planned operation, permit the most economical and most rapid installation of facilities to support the assigned mission, and allow the greatest protection against interruption of service from enemy attack. The study furnishes a military and engineering evaluation of potential base sites that can support the strategic or tactical operation. In detail, the study includes—

- (1) Concept of the operation.
- (2) Forces involved.
- (3) Target dates.
- (4) Broad combat service support requirements.
- (5) Area requirements, such as adequate harbor and waterfront areas already developed or capable of rapid development.
- (6) Topography and hydrography.
- (7) Soil characteristics.
- (8) Accessibility.
- (9) Drainage.
- (10) Availability of existing facilities, such as roads, structures, and utilities.
- (11) Weather and climate.
- (12) Water supply.
- (13) Suitability for defense (including nuclear attack).
- (14) Availability of local materials, indigenous labor, or other resources for base construction and maintenance.
- (15) Proximity of population concentrations.

b. The Base Development Planning Directive. Following the base development study, and when detailed planning for the operation begins, the theater commander issues a base development planning directive. This directive may transmit copies of the base development

study. The directive states the selected base site; the assigned support mission; the operational target date of the base; and other details, preliminary estimates, and instructions on which to base specific planning. There is no prescribed form, but the directive may—

- (1) Allocate responsibilities to the Services for specific projects and functions.
- (2) Specify completion dates and priorities for projects.
- (3) Promulgate construction policy and standards.
- (4) Allocate areas by Services and for specific purposes.
- (5) Indicate the command structure and designate major commanders charged with base development.
- (6) Indicate the scope of logistic support capabilities of the base when it is established.
- (7) Specify standing operating procedures (SOP) and directives that govern preparation of the plan.
- (8) Direct submission of data and recommendations by lower echelons for inclusion in the base development plan.

c. The Base Development Plan. The base development plan is the product of concurrent planning by Service commanders and commanders of joint forces accomplished in accordance with the planning directive. It is the governing instrument for planning and establishing an advance base. The plan is a compilation and extraction of all the information necessary for the commander and his staff to coordinate the efforts of subordinate commands in base development. It provides specific terms of direction and includes all phases of concurrent planning undertaken by the subordinate commands concerned. It sets forth the base facilities to be provided and operated and the combat service support functions to be performed. It makes reference to policy directives covering such matters as general priorities, area standards of construction, and restrictions on use of critical materials. Theater headquarters compiles and publishes the plan and may issue it as an annex to the operation plan or as an appendix to the logistic plan. On the other hand, theater headquarters may issue the plan by parts to facilitate concurrent planning. In

the event there has been no base development at the onset of hostilities, the plan becomes an operational project, prepared in accordance with AR 725-65.

3-16. Basic Planning Considerations

Base development planners consider the following:

a. Mission. The missions of the theater commander and major subordinate commanders determine the extent and schedule of base development. Base development planners consider only those installations essential to the missions.

b. Degree of Permanency. Plans provide for minimum facilities consistent with safety, health, and morale of using forces. When permanent use of the base is anticipated, planning for initial development includes consideration for later incorporation in a permanent base. The Engineer Functional Components System (TM 5-301, TM 5-302, and TM 5-303) furnishes complete plans for facilities to assist planners.

c. Limitations of Personnel, Supplies, and Equipment. The theater commander's resources of manpower, supplies, and equipment are usually limited. For this reason, and because unloading capacities in objective areas are limited, strict control of shipping is necessary.

d. Estimated Phased Population. It is necessary to estimate troop population at successive stages of base development. Estimates list major units and accompanying special units and include combat, combat support, and combat service support troops of each Service concerned. Estimates also consider anticipated enemy PW and civilian internee populations. Initial estimates require revision as troop lists become known. The completed plan contains a list of troop units.

e. Local Resources. Development of an area's local resources provides maximum support of military operations. The planner considers any expedient consistent with theater policy that conserves facilities, personnel, supplies, equipment, or time, including use of local civilians and PW's.

f. Area Available for Development.

(1) There are usually restrictions in the size and number of areas, particularly in the immediate landing area and at water terminals. When base development involves more than one Service, it may be necessary to allocate areas to each Service for the support of activities for which it is responsible. When requirements of the other military Services conflict, the commander allocates areas to insure the most effective development of the base area. Needs of the local civilian populace and combat service support are other considerations.

(2) When information on the objective area is incomplete, the planned location of certain high-priority installations, such as airfields, cannot always be exact. In such cases, the base development plan may provide that suitable sites be reserved for the Service concerned until released for other use. Each Service then makes early reconnaissance and promptly releases unsuitable and unnecessary sites.

(3) Planners consider the possibility of future expansion by studying available areas and selecting favorable sites.

g. Priority of Development.

(1) The determination of priorities for base development is an intricate task, frequently involving compromise between operational and combat service support considerations. After the establishment of operational readiness dates, base development planners insure that the objective area has the necessary construction forces and supplies. Use of incomplete base facilities is usually necessary, which may cause a reduction in construction efficiency and a delay in completion. The balancing of operational requirements against construction capabilities determines priorities. The senior commander in the objective area must have authority to make necessary changes to reflect the tactical situation and physical conditions encountered in the objective area.

(2) Factors that may govern development priorities include—

(a) Urgency of special operational requirements.

(b) Relative difficulty or time required for construction of certain facilities.

(c) Anticipated enemy interference with construction efforts.

h. Unloading of Base Development Personnel, Supplies, and Equipment. Estimates of terminal capacity available for unloading base development personnel, supplies, and equipment are essential in determining the extent of development possible in any given period. The planner also considers the availability of other base facilities to accommodate these personnel, supplies, and equipment. An operational project (AR 725-65) should contain those supplies and equipment required for construction or concurrent operation of an installation or facility. Bills of material and equipment of the Engineer Functional Components System (TM 5-303) provide planners with specific line-item requirements.

3-17. Essential Elements of Base Development Plans

Listed in *a* through *x* below are essential elements that base development planners consider.

a. Basic planning considerations (para 3-16).

b. Command organization, assignment of forces, and command relationship. Preliminary organization charts are part of the original base development plan. The base commander maintains a current functional chart or SOP for the base, with specific command lines and areas of coordination clearly delineated.

c. General layout plans.

(1) The general layout plans that accompany the theater base development planning directive allocate areas to Services. When modified to incorporate recommendations of separate Services, general layout plans become an annex to the base development plan.

(2) The general layout plans clearly define area boundaries and the layout within these boundaries. Thus, local commanders have sufficient freedom of action to permit exploitation of conditions found within allotted areas. When known desirable features exist, however, the plan indicates tentative sites.

(3) Topographic maps that include offshore hydrography are most desirable. Over-

lays to such maps and to ordinary topographic maps normally are adequate for general layout plans. Their use expedites preparation of the base development plan.

d. General supply and maintenance organizations and installations.

e. Conventional and special ammunition logistic organizations and installations.

f. Personnel replacement camps, leave and recreation centers, unit rest areas, postal facilities, and automatic data processing centers and facilities.

g. Finance facilities.

h. Utilities, roads, and natural resources.

i. Water terminal facilities.

j. Petroleum, oil, and lubricant pipelines and terminals.

k. Transportation service.

l. Signal communications.

m. Air Force installations.

n. Navy installations.

o. Medical facilities.

p. Custodial facilities, including military stockades, rehabilitation training centers, PW camps, and civilian internee camps.

q. Nonappropriated fund facilities, including clubs, theaters, and exchanges.

r. Population by phases, to include troops, PW, and civilian internees.

s. Pertinent directives and publications.

(1) Base development plans list policy directives covering such matters as general priorities, construction standards, responsibilities for control of construction, and prohibitions or restrictions on use of critical resources. This avoids repetition and permits concentration on matters peculiar to the operation.

(2) When there is likelihood that copies are not readily available to each unit concerned, important basic directives become tabs to the base development plan.

t. Instructions regarding reports.

u. Instructions regarding means for accomplishing change of plans.

v. Construction priority schedule.

w. Civilian requirements.

x. Throughout their planning, base development planners consider active and passive defense of the base (para 7-7). Other factors

they consider are dispersion, hardness, location of personnel, threat, and identification of critical targets (priority).

3-18. Forms of the Base Development Plan

There is no prescribed form for a base development plan. Appendix B shows a typical format.

CHAPTER 4

SIGNAL COMMUNICATIONS

Section I. GENERAL

4-1. Basic Considerations

a. Communications are a responsibility of command. Signal communications and military operations are integral and inseparable. The provision and maintenance of communications insure effectiveness of military forces.

b. Signal communications must be reliable, rapid, and secure.

c. Each commander is responsible for the operation of the communications system of his command and for its efficient operation as part of the integrated communications network.

d. The various communications systems established in a theater of operations are integrated. Except as tactical considerations dictate, Services or commands do not duplicate communications systems. When appropriate, a portion of the communications requirements of a command may be met by allocation of communications channels in the systems of another command or Service.

e. Various headquarters or installations in the communications zone (COMMZ) have or-

ganic communications elements capable of furnishing their internal communications.

4-2. Theater Responsibilities

a. The theater commander provides adequate signal communications to and between component Services and joint forces of his command and to associated forces and other theaters as directed. The organizational structure of the theater determines the form and extent of the theater signal communications system. JCS Pub 2 indicates joint and uni-Service responsibilities for communications in a theater of operations.

b. JCS Pub 2 also lists the joint principles followed in establishing the communications system in a theater of operations. These principles emphasize the requirements for reliable communications, economical use of resources, and integration of systems and procedures.

c. The theater commander, through his communications-electronics directorate (J6), insures the integration of theater communications facilities and the correlation of operating procedures.

Section II. THEATER ARMY SIGNAL COMMUNICATIONS

4-3. Theater Army Commander

The theater army commander provides communications services to Army elements and to other Services and agencies as directed.

4-4. Theater Army Signal Officer

The theater army signal officer plans and supervises formulation and implementation of signal plans, policies, and procedures for installation, maintenance, operation, and management of Army communications services in the theater.

4-5. U.S. Army Strategic Communications Command (Theater)

a. The theater army commander uses an integrated communications system to support U.S. Army Forces in the COMMZ; to provide communications to other Services, forces, and agencies as directed; and to interconnect with tactical communications systems forward of field army rear boundaries. This system is known as the theater army communication system (TACS).

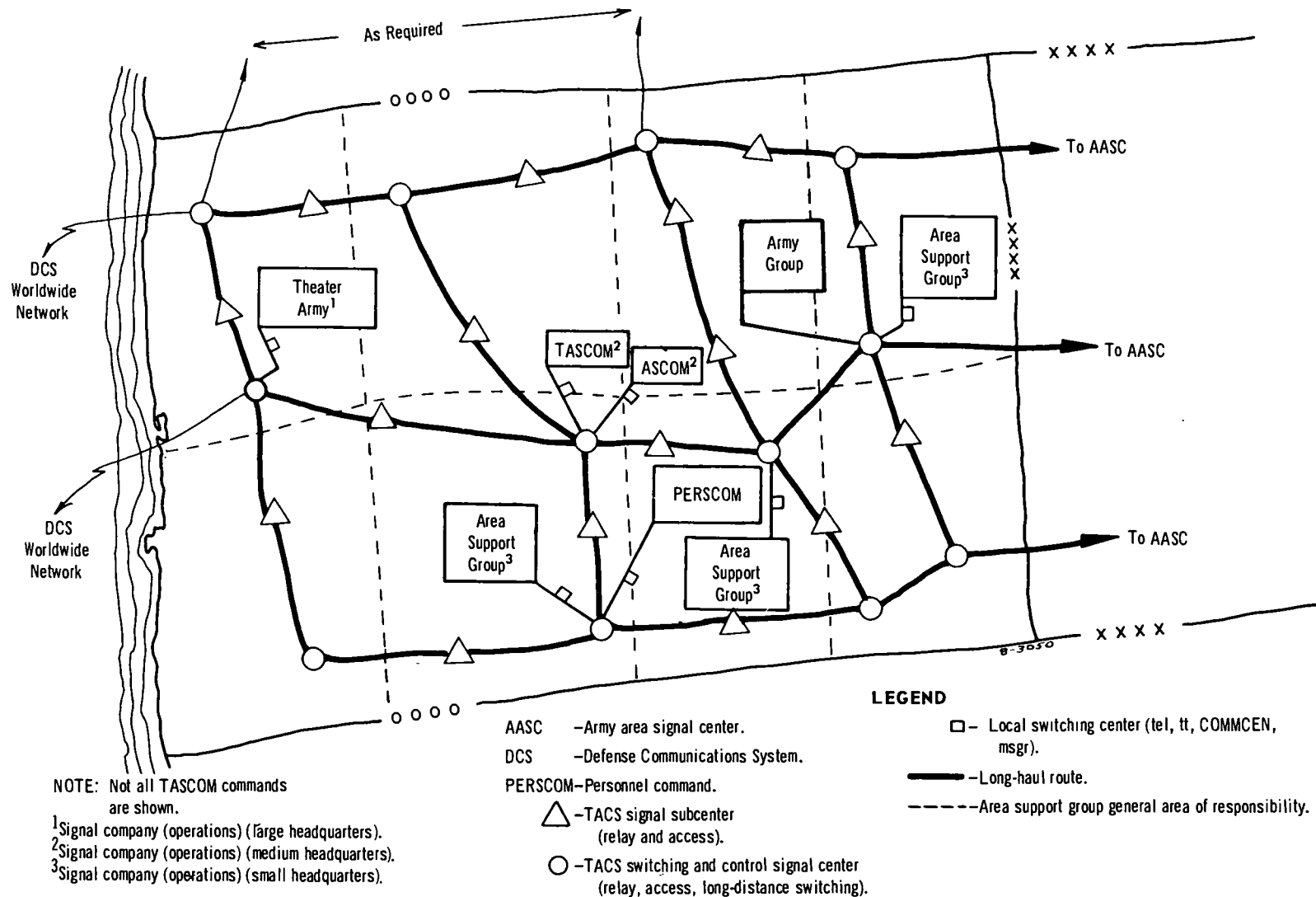


Figure 4-1. Typical TACS (schematic).

b. The U.S. Army Strategic Communications command (USASTRATCOM) (theater) is the operating element of theater army for installation and operation of the TACS. The USASTRATCOM (theater) is a functional organization with tables of organization and equipment units. Elements of this command are located throughout the COMMZ.

c. The basis of allocation of USASTRATCOM (theater) is one per theater army. The USASTRATCOM (theater) commander also serves as the theater army signal officer. USASTRATCOM (theater) provides internal communications for headquarters and installations in the COMMZ that do not have organic communications elements; e.g., mission commands and the theater army support command (TASCOM).

4-6. TACS

The TACS is a high-capacity, multiaxis, multichannel communications network using primarily tropospheric scatter radio and radio relay for long-haul circuits. TACS circuits extend from the theater rear boundary into the field army areas, where they interconnect with the field army communication system (FACS). In addition, the TACS provides theater access points to permit interconnection with the Defense Communications System worldwide network. The TACS is the basic framework for providing long-distance communications to major units and installations and includes the necessary extension facilities to major headquarters (fig. 4-1). The TACS provides facilities on both a common-user and a sole-user basis. The TACS furnishes signal communications to Air Force, Navy, allied forces, and other designated agencies as authorized or directed by higher headquarters.

4-7. References

FM 11-20, FM 11-23, and FM 24-1 provide details on theater signal communications, and FM 11-21 discusses tactical signal communications.

4-8. Operational Concept of TACS

a. The TACS consists of two subsystems—a command communications subsystem and an area communications subsystem.

(1) *Command communications subsystem.*

The command communications subsystem (fig. 4-2) consists of direct, multichannel communications links interconnecting the major headquarters of the theater and theater army. Normally, there are direct, multichannel communications links between Defense Communications System access points and theater headquarters and from theater headquarters to theater alternate, theater army, theater navy, and theater air force headquarters. There are also direct, multichannel communications links from theater army headquarters to theater army alternate, the TASCOM, army group or field army headquarters, and to allied field army headquarters when required. In addition, links may be necessary between other major headquarters in the theater, such as between the TASCOM and the field army support command (FASCOM), when the TACS area communications subsystem cannot satisfy the communications requirements between the headquarters. Tropospheric scatter radio (troposcatter), radio relay, or cable facilities provide these direct, multichannel communications links and are capable of handling all types of traffic on a 24-hour basis. Signal units of the USASTRATCOM (theater) install, operate, and maintain these communications links.

(2) *Area communications subsystem.* In the COMMZ of a theater of operations, many subordinate commands of theater army provide combat support and combat service support to the theater. These subordinate commands are widely dispersed throughout the COMMZ and require an extensive communications system for command and coordination of operations. The area communications subsystem of the TACS satisfies these communications requirements. This communications subsystem (fig. 4-3) extends along the lines of communications (LOC) from the rear of the theater, through the COMMZ, and interconnects with the FACS in the combat zone. It provides local and long-distance communications service for headquarters, units, and installations located along the LOC. This subsystem consists of transmission centers, transmission subcenters, trunk-switching centers, radio-relay and cable trunking systems, and communications centers.

b. Many small headquarters, units, and in-

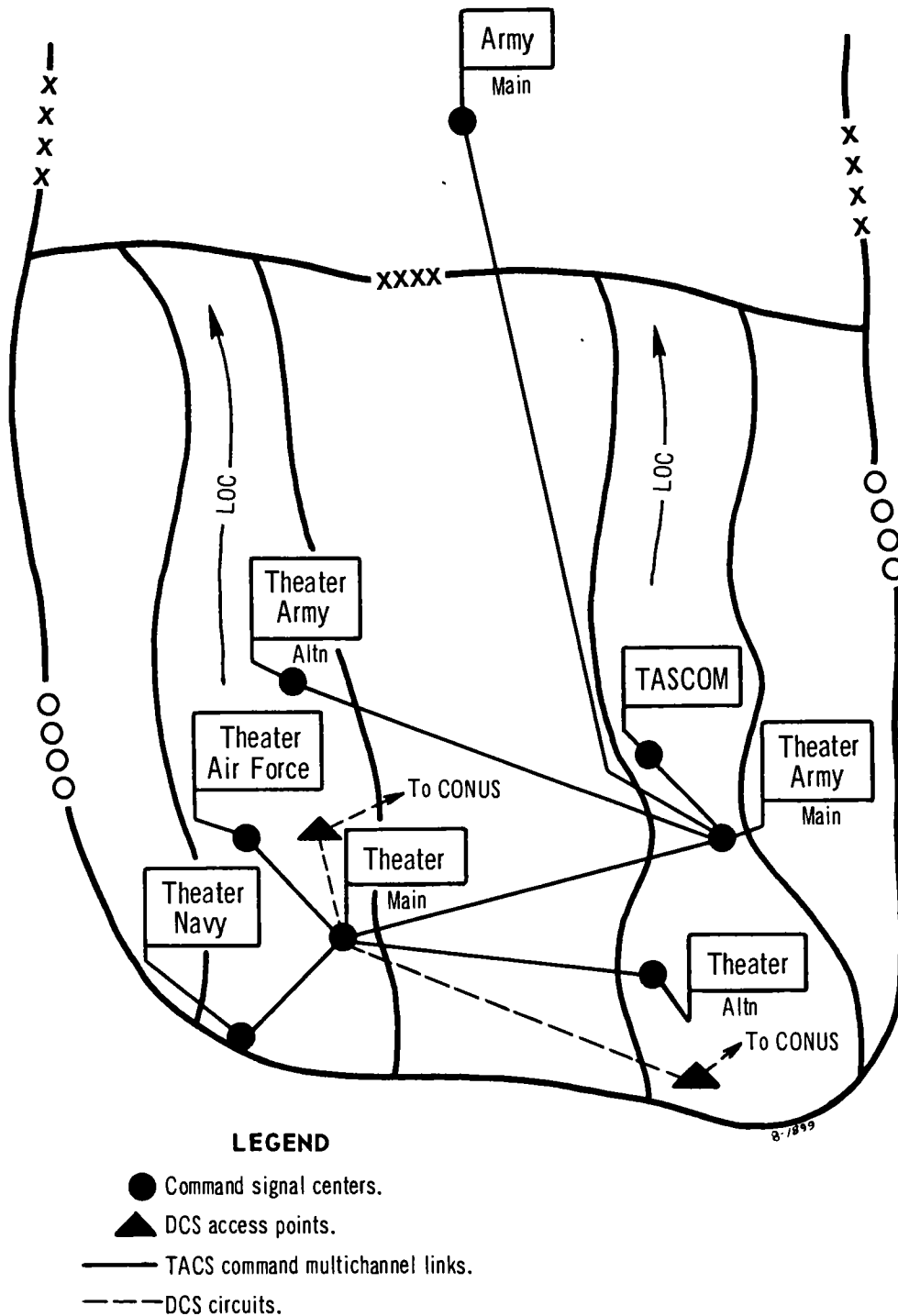
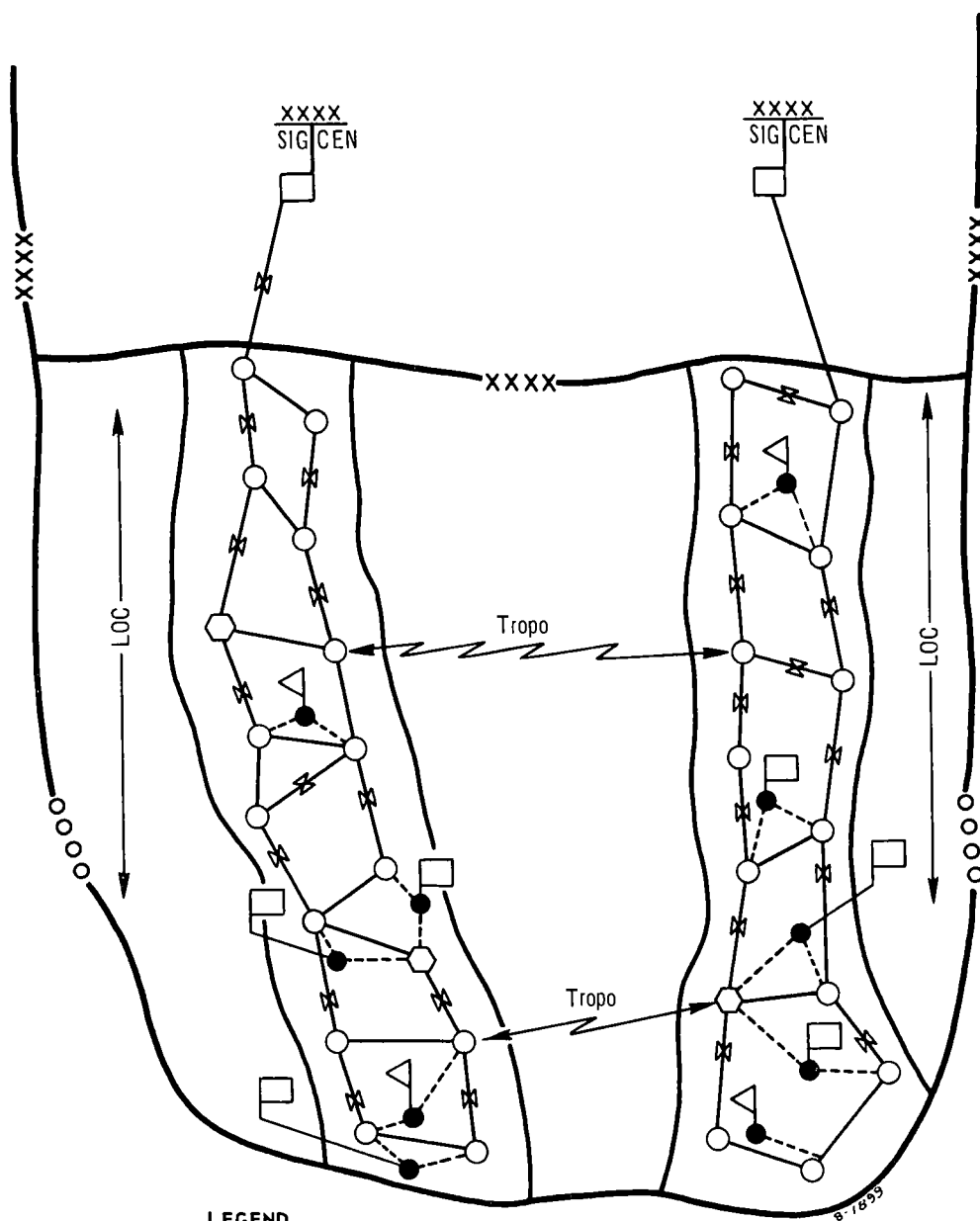


Figure 4-2. Typical command communications subsystem (schematic).

stallations located along the LOC require local and long-distance communications service. The area communications centers provide this service on an area basis. Field wire and field cable circuits connect these area communications

centers to headquarters, units, and installations; multichannel access trunks connect the centers to the long-lines trunking systems at transmission centers and selected transmission subcenters. The area communications centers



LEGEND

- Transmission centers.
- ◻ Terminal communications centers (command).
- ◻ Terminal communications centers (area).
- ◻ Trunk-switching centers.
- Long-line trunks.
- - - Access trunks.
- ⊗ Transmission subcenters.

Figure 4-3. Typical area communications subsystem (schematic).

provide patching, switching, telephone, and radio-wire integration services. Other services include message center, teletypewriter, radio-teletypewriter, facsimile, transceiver, and messenger.

c. The TACS radio nets provide backup for the multichannel radio and cable links. In addition, TACS radio nets provide mobility and flexibility in the use of the TACS. Radio nets may provide point-to-point service or in net operation may consist of more than two stations. TACS radio nets normally provide communications between echelons of headquarters and between headquarters and subordinate commands.

4-9. Special-Purpose Communications

Local and theater-wide services provide special-purpose communications facilities. If necessary, separate facilities may be provided for this purpose. The types of services that may be required are discussed in *a* through *c* below.

a. Communications for press and morale services vary with the situation.

(1) In some cases, it may be necessary to provide communications services for press copy from the combat zone and each major headquarters in the COMMZ to theater headquarters and from a theater press center to the continental United States or to news agencies elsewhere. When there is a requirement for special circuits, the circuits operate under the direct staff supervision and normally the operational control of the theater army signal officer, who may set up separate units to operate such circuits.

(2) Communications for morale purposes include Red Cross messages, entertainment broadcasts, and cable service for troop use. The theater army signal officer normally has the responsibility for providing these services.

b. Communications for the Army air traffic control system is essential to flying safety and proper management of Army aviation operations. Facilities required include ground-to-air radio communications and telephone, radio, and teletypewriter service between Army airfields and navigational aids and between air

traffic control facilities and air defense command and control facilities. The TACS may provide control facilities and trunk circuits for the Army air traffic control system as directed by the theater army commander.

c. The TACS will satisfy the common-user and normally allocated channel requirements for railroad systems, bulk petroleum product distribution, and rear area protection operations.

4-10. Nonelectronic Communications Services

a. Headquarters, units, and installations in the COMMZ generate a large volume of message traffic that is too bulky or too low in priority to transmit electrically. To move this traffic, it is necessary to establish a long-distance air and ground messenger system. Relay stations along the LOC collect message traffic. Local messengers at major headquarters and at the area communications centers drop and pick up message traffic at these relay stations on a regular schedule. The message relay stations dispatch this traffic to other stations that serve the addresses by air and ground messengers. The long-distance air and ground messenger service should be responsive and rapid and normally should deliver message traffic from the rear of the COMMZ into the field army area within 24 hours.

b. Headquarters, units, and installations in the COMMZ require pictorial service for operational records, information, and miscellaneous purposes. This service consists of still and motion-picture (black and white and color) photographic coverage, including laboratory processing facilities and audiovisual communications service. The signal pictorial company provides pictorial service in the COMMZ and limited backup photographic support in the combat zone. The signal operations companies (small and medium headquarters) provide motion-picture and still photographic coverage and still laboratory services to supported headquarters.

Section III. ARMY GROUP AND FIELD ARMY SIGNAL COMMUNICATIONS

4-11. Army Group

a. The army group commander provides communications for army group headquarters and local communications for army group troops. The army group signal officer supervises signal units operating under army group headquarters.

b. The army group obtains theater-wide communications service from the TACS and the FACS.

4-12. Field Army

a. *General.* The field army signal officer commands the army signal brigade and exercises staff supervision over the FACS. Each field army normally has a signal brigade, consisting of an army command signal radio and cable battalion, an army command signal operations battalion, and six army area signal battalions. The basic communications system consists of multichannel radio and cable links, signal centers, extension facilities, high-frequency radio nets, and a messenger service, organized into an area communications subsystem and a command communications subsystem.

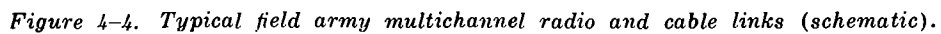
b. *Multichannel Radio and Cable Systems.* The multichannel links interconnect the echelons of field army headquarters and connect the echelons of field army headquarters to the echelons of major subordinate command headquarters to form the command communications subsystem (fig. 4-4). The multichannel links between the area signal centers, from the area signal centers to the echelons of field army headquarters, to the division communications system, to the echelons of corps headquarters, and to other major headquarters, units, and installations in the area form the area communications subsystem. The circuits of the systems are primarily common-user circuits; however, it may be necessary to provide sole-user circuits when justified. The signal centers connect to at least two other signal centers to provide alternate routing between centers and to reduce the vulnerability of the system. Signal troops of the USASTRATCOM (theater) con-

nect the FACS to the TACS in at least two points, called theater access points.

c. *Field Army Signal Centers.* A signal center is a groupment of signal communications facilities installed, operated, and maintained by Signal Corps units. Each signal center normally provides communications center, messenger service, telephone and teletypewriter switching and circuit testing, and rerouting facilities. The center provides the handling of other facilities, such as facsimile and automatic data processing, when authorized. There are two types of signal centers—command signal centers and area signal centers. Signal centers located at a headquarters are designated command signal centers. Signal centers located in an area to provide service to dispersed units and installations are designated area signal centers. Command signal centers are at the echelons of field army headquarters, and area signal centers are in areas of high troop density.

d. *Field Army Radio Nets.* Field army radio nets serve as backup for the multichannel radio and cable links. In addition, field army radio nets provide mobility and flexibility in the use of the FACS. Radio nets may provide point-to-point service or in net operation may consist of more than two stations. The field army radio nets provide communications between the echelons of field army headquarters and from the echelons of field army headquarters to major subordinate commands.

e. *Field Army Messenger Facilities.* Field army messenger facilities consist of air and ground messenger service between the echelons of field army headquarters and from the echelons of field army headquarters to major subordinate commands. Air and ground messengers normally operate on a scheduled basis, but they may operate on a special basis when the priority of the traffic requires. There are also messenger facilities between the area signal centers and to adjacent area signal centers.



Section IV. SIGNAL COMMUNICATIONS FOR STABILITY OPERATIONS

4-13. General

An extensive communications system is necessary in stability operations. Commanders use all communications means to the maximum possible extent; however, they take precautions against sabotage of communications facilities and ambush of operating personnel. The nature of insurgency restricts the use of wire and cable, but these means should be used, where practical, and routes selected should provide maximum concealment and protection. Civilian communications facilities are generally vulnerable to sabotage and irregular force actions; however, these facilities should supplement military communications channels to the degree consistent with security and reliability requirements.

4-14. Radio

Because of destruction of telephone lines and ground wire, communication by radio may be the only reliable means available. The dispersion of small military units; the frequently rugged terrain; and the need for detailed area surveillance and swift, responsive, and continuing communications capabilities usually demand air and ground electronic surveillance

and communications capabilities that exceed the capabilities of organic signal equipment. Therefore, it may be necessary to provide augmentation. Army aircraft are effective for command and control purposes and can provide mobile command posts and limited relay of communications.

4-15. Planning

Detailed communications planning is critical in stability operations because of the combined and joint operations frequently engaged in by various U.S. and host country military and paramilitary forces. The variety of communications equipment, especially radio, usually found in the host country dictates thorough planning, simplicity of operations, and detailed coordination to insure compatibility of equipment selected for operations.

4-16. Special Considerations

Special operational and technical considerations are necessary for most stability operations. There may be a requirement to develop specific procedures for a communications system that adequately supports each type of combat and combat support operation.



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CHAPTER 5

CIVIL AFFAIRS

Section I. INTRODUCTION

5-1. References

FM 41-5, JCS Pub 2, and JCS Pub 3 discuss the joint aspects of civil affairs (CA). FM 41-10 provides details on CA operations and CA units. FM 31-23 discusses the organization and conduct of CA activities in stability operations.

5-2. General

a. CA is a command responsibility and involves the relationship between the military commander and his forces and the civil authorities and people of a foreign country. CA operations range from advice, assistance, populace and resources control, and military civic action performed in a friendly country through military government performed in an occupied territory.

b. The primary objective of CA operations is to support military operations by controlling the civil population through the regulation of social processes. Such action minimizes interference by the civil population in the military mission, while gaining maximum local support for the campaign. Psychological operations play an important role in attaining this objective. Other objectives include the furtherance of U.S. national policies and the fulfillment of treaty obligations and those obligations that arise from agreements and the customs of warfare.

c. The administration of CA is on a functional basis, with sufficient flexibility to fit the special requirements of any area or situation. Included in the areas of specialization are those functions normally related to government, economics, public facilities, control of population and local resources, and sociological institutions. FM 41-10 defines CA functions.

d. The nature of CA operations varies with the type of warfare, the attitudes and status of the population in the area of responsibility, and the requirements of the tactical commander. Civil affairs operations may be centralized or decentralized as the situation requires. Usually, the most responsive civil affairs operational and organization concept envisions centralized direction and decentralized operations, including the provision of civil affairs units to combat commanders to meet their specific needs. In limited and general war, CA operations normally support the tactical situation. In stability operations, however, CA may become a primary mission of the military force because the ultimate objective is to gain the support of the populace for its government. CA input, with emphasis on execution, must be part of the planning for every military operation. Military planners consider the inherent capability of every Army unit to conduct CA operations. Planning provides for the employment of CA specialists and units to augment and support this inherent unit capability.

5-3. Civil Affairs Authority and Responsibilities

a. JCS Pub 2 sets forth the authority and responsibilities of the Department of State; other Government departments; the National Security Council; the Secretary of Defense; the Joint Chiefs of Staff; the Chief of Staff, U.S. Army; the Chief of Naval Operations; and the Chief of Staff, U.S. Air Force.

b. A military commander's CA authority depends on the military mission and the relationship of the government concerned to the

United States. The authority the commander exercises conforms to U.S. national policy, the law of land warfare, treaties, and international agreements. The authority to establish the military government phase of CA arises from the international laws of war, which give the occupying power certain rights and responsibilities.

c. Each commander of a unit of the U.S. Armed Forces is responsible for—

(1) Complying with the laws of the United States, customary law, and the law of the country concerned.

(2) Performing such missions in the field of CA as he may be directed.

(3) Using appropriate CA units and personnel, except as otherwise directed, to secure necessary assistance, supplies, and facilities from local sources and to deal with local civilians and governments on his behalf.

Section II. COMMAND AND STAFF RELATIONSHIPS

5-4. General

a. Theaters of operations in most cases employ joint or combined organizational structures. Control and coordination of CA matters are at the highest level consistent with military requirements.

b. When U.S. diplomatic representatives are in the area, Executive order usually delineates the relationship between the theater commander and the diplomatic representatives.

c. When U.S. diplomatic representatives are not in the area, the senior U.S. military commander normally has authority, within U.S. national policy, as outlined in paragraph 5-5.

5-5. Theater (U.S. Forces)

When directed, the theater commander advises and assists, or exercises a specified degree of control over, civil populations, their governments, economies, and institutions. In the conduct of CA activities, the theater commander—

a. Plans for and conducts CA operations as appropriate. His activities are in accordance with guidance, policies, plans, and operational instructions of the Joint Chiefs of Staff.

b. Secures CA units and personnel required to execute his plan in the same manner that he secures other forces.

c. As required, obtains a political advisor on his staff from the Department of State to advise on implementation of established policy and to provide liaison with the Department of State.

d. Is authorized to delegate authority for CA matters to one of the Service component commanders.

5-6. Theater Army

a. Should the theater commander desire to delegate CA authority, he normally delegates authority for the combat zone and the COMMZ to the theater army commander when the theater army headquarters is in the operational chain of command (as is the usual case in peacetime). In this event, the theater army commander normally further delegates CA authority for the combat zone and the COMMZ to the field army (army group) and TASCOM commanders respectively, with the TASCOM commander usually delegating authority in turn to the ASCOM commander. Only on an exceptional basis does the theater army commander establish a theater army CA command with theater-wide responsibility. When the theater army headquarters is not in the operational chain of command (as is the usual case in wartime), the theater commander also may desire to delegate CA authority, in which case he normally delegates authority for the combat zone to the field army (army group) commander and for the COMMZ to the theater army commander. In this event, CA authority normally is delegated further to the TASCOM and ASCOM commanders in turn. In any case, when CA authority for the COMMZ has been delegated to them, the theater army and TASCOM commanders may retain this authority, but usually it is given to the ASCOM commander and not further delegated.

b. The field army (army group) commander usually has CA authority in the combat zone. The field army commander normally delegates this authority to the corps commander for the corps area and to the FASCOM commander for

the field army service area. This delegation of authority does not usurp the field army commander's prerogative to exercise that degree of control which is necessary for military operations nor does it relieve him of the responsibility for insuring that his troops comply with CA policies. The corps commander normally further delegates authority to division commanders for the division areas and to the COSCOM (when present) commander for the corps rear area. Primarily, this delegation of authority establishes a supporting-to-supported relationship between CA and tactical units and relieves the tactical commander of routine responsibilities. CA authority normally is delegated no further than to FASCOM, COSCOM, and division level. In any case when CA authority within combat zone has been delegated to them, the field army and corps commanders may retain this authority, but usually it is further delegated as outlined above.

c. The theater army commander may have CA authority in rear areas of the combat zone when political boundaries or other considerations make it desirable to relieve the combat commander of CA responsibilities in these areas.

d. To provide CA support in the theater, the usual organization employed is the CA brigade which normally is allocated on the basis of one per field army and one per COMMZ. It may be assigned or attached to a theater army, TASCOM, ASCOM, field army, or FASCOM. In any case, the CA brigade normally will attach appropriate civil affairs units to commanders to whom CA authority has been delegated. The CA brigade commander retains command less operational control, which is exercised by the supported commander.

Section III. ORGANIZATION

5-7. Theater Army

a. *General.* In the communications zone (COMMZ), a CA brigade normally provides CA support. Its units provide area support in the COMMZ and backup support to field army CA units. They contain a full range of specialization to provide complete functional capability in the COMMZ and to perform specialized functions not found in field army CA units. CA units in the COMMZ have assigned areas of responsibility, dependent on densities of civil populations and self-sufficiency of indigenous governments as well as on geographic or political boundaries. These units have a minimum capability, which can be expanded by the assignment of additional CA teams (TOE 41-500) or units as the situation requires.

b. *Civil Affairs Brigade.*

(1) *General.* The CA brigade may be a major subordinate command of theater army, theater army support command (TASCOM), or area support command (ASCOM), depending on the delegation of CA authority in the COMMZ. It provides for the command, control, policy, decisions, and planning of CA operations in the COMMZ. The CA brigade coordinates policies and plans for effective CA opera-

tions with supported units in the COMMZ and with the CA brigade in the field army. The CA brigade is the normal organization used when the theater army commander chooses to establish a theater army CA command on the exceptional basis outlined in paragraph 5-6a.

(2) *Mission.* The CA brigade conducts operations that directly support the military commander's political, sociological, and economic responsibilities in his area of operations. In fulfilling its mission, the CA brigade—

(a) Participates in coordinated activities with other U.S., allied, or international military components or civil agencies in implementing U.S. national policy.

(b) Discharges the commander's responsibilities pertaining to the civil population, government, and economy of the area in compliance with U.S. international obligations.

(c) Furthers the international and national policies of the United States.

(d) Expedites the transfer of responsibility for CA functions from the military commander to agencies of the local government.

(3) *Organization.* In normal employment, the CA brigade has three or more CA groups attached as its major operating units. The

number of groups vary; however, when there is a requirement for more than six groups, an additional brigade should be organized for each four groups or major fraction thereof.

(4) *Command relationships.*

(a) Because CA units in the COMMZ have assigned areas of responsibility, they operate under the command of the CA brigade. However, they maintain liaison with other commands for unified discharge of CA operations affecting all military units that they support. Regardless of its assignment or attachment, the CA brigade normally attaches for operational control appropriate CA units to any commander delegated CA authority.

(b) The CA brigade operates under the staff supervision of the assistant chief of staff, CA (G5), theater army, TASCOT, or ASCOM, depending on which command has CA authority. Through reports, statistics, and personal contacts, the brigade keeps the G5 informed on all aspects of the CA situation and requirements in the COMMZ area of operations. To accomplish this, the brigade headquarters should have authority for direct contact with higher and adjacent staff sections for the exchange of information, the coordination of CA actions, and the integration of operations pursuant to theater plans and policies.

5-8. Field Army

a. *General.* CA support in the field army area may be intersectional in nature, particularly where committed to Army-wide support operations. The nature and type of warfare directly affect CA support, and this support varies widely with the situation and the area of operations. Normally, a unit or a command conducts CA activities in an area based on existing political or geographic boundaries.

(1) The purpose of CA support in limited and general war is normally to reduce interference with troop and supply movement and to obtain or to provide support for military operations in the combat zone.

(2) In stability operations, because of the importance of isolating the insurgent from the population, the conduct of CA operations becomes a salient mission of the military force. Plans must include an integrated and coordinated civil-military approach designed to reas-

sert governmental control and to gain the trust, confidence, and active cooperation of the population. Stability operations occur within a host-guest environment and must support and strengthen the local government without usurping its powers and prerogatives.

(3) A CA brigade normally provides CA support in the field army. It may be assigned or attached to a field army or a FASCOM.

b. *Civil Affairs Brigade.* A CA brigade supports a field army primarily in a general or limited war environment in a command support role.

(1) *Mission.* The CA brigade conducts operations that support the tactical situation and U.S. national objectives. In performing its mission, the brigade seeks to—

(a) Provide the necessary assistance to the civil populace, displaced persons, and refugees if the civil government is not functioning.

(b) Locate, protect, and control civilian resources required for military operations and essential civilian support.

(c) Provide close liaison between tactical units and local authorities.

(2) *Tasks.* Specific CA tasks to be accomplished as soon as possible after occupation of an area include—

(a) Posting of proclamations issuing initial instructions to the civil populace.

(b) Locating civil authorities, determining their ability to establish control, and advising them on measures to be taken.

(c) Locating and arranging for the protection of civilian warehouses, industrial plants, storage sites, monuments, and historical buildings.

(d) Collecting firearms and ammunition and identifying and apprehending enemy collaborators or insurgents.

(e) Establishing initial controls over displaced persons and refugees.

(3) *Organization.*

(a) The organization of CA units is flexible and adaptable so that the units can be adjusted to local military, political, economic, and sociological conditions. These units should be capable of initiating activities in the combat zone as soon as the area comes under the influence of friendly military forces. Control of CA units may be centralized or decentralized, de-

pending on the type of operation being conducted. In many situations in forward areas and changing conditions of combat, particularly in stability operations, operational control of CA units and teams is normally decentralized to the commander who has responsibility for a particular area.

(b) Whenever feasible, the field army allocates areas of responsibility for CA units and teams in the combat zone based on local political boundaries. If this is not practicable, areas of responsibility coincide with tactical boundaries of supported units.

(c) The field army requests additional

CA units or functional teams, as required, from the next higher headquarters.

(4) *Command relationships.* Regardless of its assignment or attachment, the CA brigade normally attaches for operational control appropriate CA units to any commander delegated CA authority. Brigade supervises CA operations within its designated area of responsibility. These activities vary, depending on the situation, from providing liaison, advice, supervision, and assistance to exercising complete legislative, judicial, and executive control. Normally, the brigade commands from three to six CA battalions. It also provides backup support for subordinate CA units.



CHAPTER 6

INTELLIGENCE

6-1. General

The nature and extent of military intelligence (MI) support required within the theater army depend on the mission, threat, operational environment, and theater army force structure. In addition to these factors, military alliances, political considerations, and specific intelligence agreements each dictate the military intelligence specialist skills and strengths required to support the intelligence effort. The MI group, theater army; MI group, security (ASCOM); and MI battalions assigned to the field army comprise the typical MI organization found within the theater army. Combat Service support units within the combat zone receive MI support through command channels. The discussion that follows covers MI support as related to combat service support units in the COMMZ.

6-2. Intelligence Support

Theater army headquarters provides those intelligence and intelligence specialist support services that are beyond the organic capabilities of its subordinate commands or those services that it can centralize more effectively and efficiently. Subordinate commands retain those intelligence responsibilities and resources that are essential to their missions and those whose response time would be attenuated to a degree constituting an unacceptable risk.

a. The MI units assigned to theater army, field army, and the TASCOM support those commands in the exercise of their command intelligence responsibilities. Although the three echelons establish working-level coordination for many of their activities, they operate under the staff supervision of their respective command intelligence officers. There is no requirement for an MI command to coordinate or to provide administrative support for the three echelons. Requisition and assignment of re-

placement or augmenting personnel is through normal channels.

b. The TASCOM, using the resources of its commands and the MI group, security, ASCOM, as collection agencies, produces and distributes intelligence of immediate concern to units in the communications zone. TASCOM intelligence activity is oriented primarily toward the threat to area security. Intelligence produced in the combat zone and elsewhere outside the TASCOM is distributed as appropriate to the TASCOM.

c. Both the TASCOM and the field army have requirements for long-range strategic intelligence on enemy forces and areas of operations beyond their immediate interest. Because the TASCOM and the field army have a limited strategic intelligence capability, they rely on theater army headquarters for strategic intelligence needs. Theater army headquarters is responsible for anticipating and either producing or procuring the finished intelligence beyond the capabilities of its subordinate commands.

d. Although not part of the MI structure, the TASCOM will each require signal intelligence (SIGINT), signal security (SIGSEC), and Air Weather Service support.

e. Besides its basic intelligence staff capability, theater army headquarters requires intelligence staff and MI specialist augmentation for processing information and producing the intelligence required by the theater army staff, subordinate commands, other service component commands, and the theater.

6-3. Military Intelligence Group, Theater Army

The MI group theater army, is not a fixed table of organization and equipment (TOE) unit, but is a flexible structure of the type and size needed to provide adequate support to theater

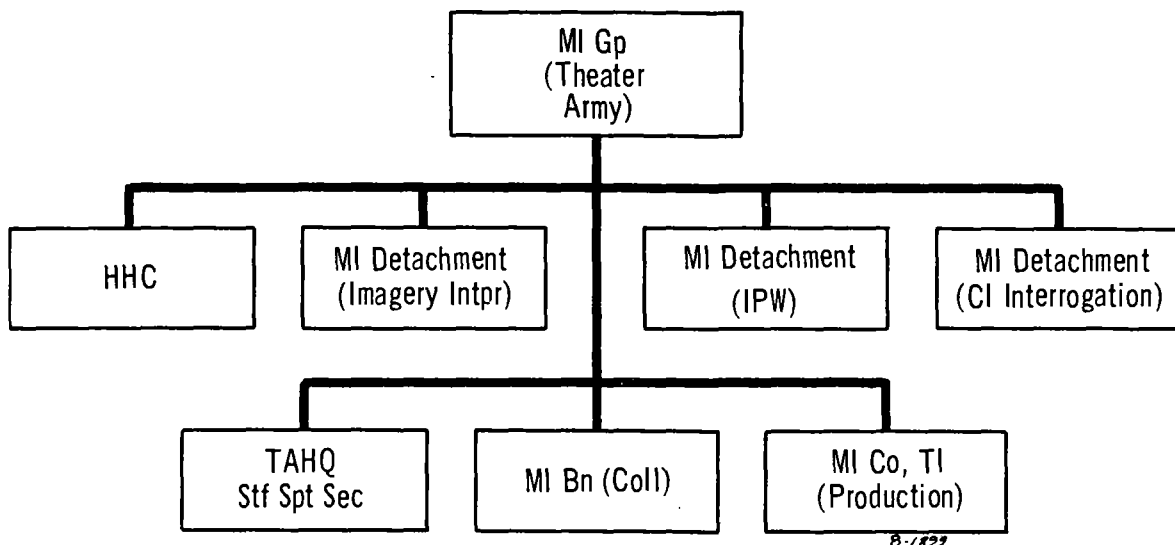


Figure 6-1. Typical MI group, theater army.

army headquarters and its subordinate commands. One or more MI groups, theater army, normally are assigned to a theater army. The MI group relies on continental United States MI resources to provide the necessary MI units and personnel as requirements are established in the theater. Figure 6-1 shows a typical MI organization in support of theater army. Those units that normally comprise the group are discussed in *a* through *h* below.

a. The MI group headquarters and headquarters company provides the normal command, control, and support personnel in the employment of operational elements of the group.

b. The theater army headquarters staff support section provides augmentation to the theater army assistant chief of staff (ASofS), intelligence (G2), in the form of MI staff and production specialists, as required. The theater army headquarters staff support section normally is formed from MI cellular teams and personnel of the TOE 30-500-series and TOE 30-600-series, based on the current and anticipated requirements of the command. Examples of MI specialists who may be included in this section are strategic intelligence and order-of-battle production specialists, censorship personnel, and intelligence, counterintelligence, and technical intelligence staff personnel. These personnel operate directly in the theater army G2 staff section.

c. The imagery interpretation detachment processes imagery provided the G2 by the tactical air force (TAF). This element is normally near theater army headquarters, but it may be at one or two TAS reconnaissance airfields. The imagery interpretation reports prepared by this element normally are used in long-range plans and studies.

d. A prisoner-of-war (PW) interrogation detachment is at each PW cage in the TASCOM area and provides reports on selected PW's in response to specific requirements levied by the theater army G2. The field army G2 may also request interrogation of selected PW's whose knowledgeability in matters of field army interest became known after evacuation from the field army.

e. The technical intelligence company (production) provides examination, analysis, and reports on enemy materiel collected and evacuated by technical intelligence collectors in the field army and COMMZ. To perform its mission, this company must have access to medical and chemical laboratories.

f. The counterintelligence interrogation detachment provides centralized and specialized interrogation in support of counterespionage, countersabotage, and countersubversion operations under the direct control of theater army headquarters. This detachment closely coordinates its operational activities with the MI

group, security (ASCOM), and with counterintelligence elements in the field army.

g. The MI battalion, collection, fulfills special theater army intelligence requirements that cannot be obtained through other collection means. It augments the effort of the MI company, collection, organic to the MI battalion, field army.

h. Relationship of the MI group theater army, with other theater army and component commands is as follows:

(1) The MI group theater army, operates in direct support of theater army headquarters and in general support of the MI battalions assigned to the field army and the MI group, security, ASCOM. If the theater commander establishes joint intelligence facilities, the theater army MI group can provide intelligence support to the Army element of such joint facilities.

(2) The MI group, theater army coordinates closely with comparable intelligence units of other component commands to provide for timely exchange of intelligence information, consolidation of appropriate operations, and elimination of conflicts and duplication. The MI group, theater army, exchanges liaison personnel with the MI battalions in the field army to insure close coordination of operations and to permit orderly transfer of counterintelligence operational cases. The group also exchanges liaison personnel with the MI group, security (ASCOM) to coordinate counterintelligence interrogations and transfer to counterintelligence operational cases.

6-4. MI Group, Security ASCOM

a. The MI group, Security (ASCOM) provides that military intelligence and counterintelligence specialist support which is beyond the organic capabilities of TASCOM subordinate commands and which can be centralized for more effective and efficient use. TASCOM subordinate commands retain intelligence responsibilities and resources that are essential to their missions. A detailed discussion of the organization is contained in FM 54-6-1 (Test).

b. The MI group, security (ASCOM) provides MI specialist support for TASCOM, all Army units and installations (including the-

ater army headquarters), and other designed agencies and installations in the TASCOM area. The group conducts security investigations of Army personnel in the COMMZ as directed. It also conducts counterintelligence operations in the TASCOM area in support of theater army headquarters and the ASCOM rear area security mission. Figure 6-2 shows the organization of the group. The group headquarters controls, centralizes, and manages the personnel security effort, while the subordinate MI detachments conduct the investigations. Because counterespionage, countersabotage, and countersubversion operations transcend the boundaries of the area support groups subordinate to the ASCOM, the MI group headquarters plans and controls these operations. The commanding officer, in coordination with the ACofS, security, plans, and operations, ASCOM, makes the necessary adjustments to the strength of MI detachments to reflect variations in Army personnel strength and the hostile threat in area support group areas. If the hostile threat escalates to the degree that aerial surveillance aircraft with an imagery capability are assigned, attached, or providing support to the ASCOM, a detachment to provide imagery interpretation and processing may be added to the MI group.

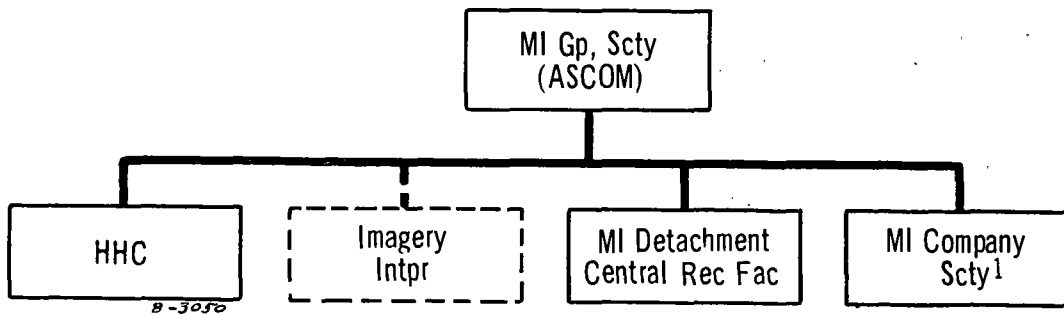
c. Headquarters and headquarters company, MI group, security, provides command, control, and supervisory elements for all MI units assigned. Group headquarters provides subordinate detachments classified equipment, maintenance, and supplies peculiar to intelligence operations.

d. The MI detachment, central records facility, is the centralized records facility that supports MI units throughout the theater army. The central records facility maintains records on personnel of intelligence interest and supports counterespionage, countersabotage, countersubversion, and collection operations. It provides direct support to MI units in the ASCOM; the MI group, theater army; and the MI battalions of the field army. It also responds to queries from security elements outside the theater army as authorized.

e. MI companies, security, provide intelligence specialist support for area support

groups and respond to area support group intelligence requirements, which normally include physical security and assistance in security training. The company headquarters element, normally located near an area support group headquarters, insures coordination and close support. To assist accomplishment of the company's missions, company personnel may

be at several locations in an area support group's area. The detachment closely coordinates its operations with military police and civil affairs units in the area. The detachment conducts counterespionage, countersabotage, and countersubversion operations and personnel security investigations as directed by the MI group headquarters.



LEGEND

----- Augmentation, as required.

¹One per area support group.

Figure 6-2. MI group, security, ASCOM.

CHAPTER 7

REAR AREA PROTECTION

7-1. General

The rear area is the geographic space within a command area where the bulk of combat service support functions are performed. In the corps, it is the area behind the division rear boundary. The rear area of the field army (field army service area) is that portion of the field army area between the corps rear boundary and the field army rear boundary. The corps rear area, the field army service area, and the entire communications zone (COMMZ) are normally rear areas.

7-2. Rear Area Protection

Rear area protection (RAP) includes rear area security and area damage control. Rear area security/area damage control indicates a distinct set of highly objective, physical acts designed to bring about security in the rear. RAP is broader in scope, indicating interjection of subjective political considerations into this total field. The term "rear area protection" is now used rather than the combined terms "rear area security/area damage control."

a. The purpose of RAP is to prevent enemy interruption of combat, combat support, and combat service support operations. Major causes of this interruption include nuclear, biological, and chemical (NBC) attacks and airborne, guerrilla, infiltrator, and saboteur operations.

b. RAP measures include those actions taken to prevent, neutralize, or destroy enemy attacks on units, activities, and installations in rear areas.

7-3. Mission and Functions

a. The commander exercising area control is responsible for protecting the resources of his area from interruptions caused by enemy activities or natural disaster. He is not responsible,

however, for providing local defense, air defense, or defense against major enemy actions.

b. An area commander performs the functions involved in RAP based on authority, procedures, and policies delineated in the COMMZ by the theater army support command (TASCOM) commander and in the field army service area by the field army support command (FASCOM) commander. The corps commander has RAP responsibility in the corps rear area. RAP functions include the following:

(1) Influencing the organization of a land area and delineating subdivisions of the area to fix RAP responsibilities.

(2) Promulgating command policies pertinent to populace and resources control in the area.

(3) Collecting and distributing an integrated and accurate estimate of the friendly and enemy situation.

(4) Planning RAP measures and creating forces to execute the plans.

(5) Exercising control over RAP forces when activated.

(6) Integrating or supporting tactical resources when committed to RAP missions.

7-4. Organization

a. The organization for RAP includes two types of elements—

(1) Those permanently assigned RAP responsibilities.

(2) Those assigned RAP responsibilities on an as-required basis.

b. Elements permanently assigned RAP responsibilities are the FASCOM and the army support brigade and its groups for the field army service area and the TASCOM, the area support command (ASCOM), and area support groups for the COMMZ. The FASCOM, the army support brigade, the TASCOM, and the

ASCOM provide general guidance and perform long-range planning functions.

c. Elements assigned RAP responsibilities on an as-required basis include those combat service support and combat support elements normally occupying or operating in, and those transient forces temporarily located in, the field army service area or the COMMZ.

d. The rear area operations center (RAOC) is a groupment of functionally-oriented personnel trained and equipped to keep the area commander momentarily informed of the situation in his area and of the resources available to meet emergencies. In addition, the RAOC may provide command and control over forces created to handle RAP problems.

(1) In the TASCOT, each area support group has an RAOC. The RAOC provides the detailed planning capability for the area commander, as well as command and control over forces created to handle RAP problems.

(2) In the FASCOM, each support group in the army support brigade has an RAOC to provide the services indicated in (1) above.

(3) The RAOC has four sections, as follows:

(a) Detachment headquarters, which supervises and supports the other RAOC sections.

(b) Plans and operations section, which services the area headquarters, all tenant units, and adjacent RAOC's.

(c) Rear area security task force command section, which inspects, supervises, plans, and exercises command and control over rear area security resources.

(d) Area damage control task force command section, which inspects, supervises, plans, and exercises command and control over area damage control resources.

(4) The RAOC normally is assigned directly under an area commander and is further placed under the general staff supervision of the assistant chief of staff (or director), security, plans, and operations.

(5) Functions and responsibilities of the RAOC are to—

(a) Create RAP forces, plan for their employment, and command them when activated.

(b) Collect, collate, and distribute information pertaining to operations in the area.

(6) NBC responsibilities in RAP pertain largely to measures for avoiding or reducing the effects of enemy NBC attack. The RAOC is responsible for coordinating these measures.

(7) For details on communications support for RAP, see FM 19-45-1 (Test).

e. The area support group commander establishes one RAOC on the assumption that he will not subdivide his area of responsibility. The group RAOC operates under the staff supervision of the director, security, plans, and operations.

7-5. Command Relationships

a. Command relationships for RAP must provide unity of command while preserving simplicity (fig. 7-1). The urgency of RAP operations demands clear-cut authority. An area commander's mission is to support his functional tenants and, at the same time, to provide for their mutual protection. He must not, however, permit defense measures to interfere unnecessarily with mission operations.

b. The seriousness of the condition that exists in the rear area determines the chain of command for the rear area security portion of RAP measures (fig. 7-2).

c. The principle that the area commander has the necessary authority for operational command over units in his area during emergency area damage control operations is the governing factor in establishing the chain of command for the area damage control portion of RAP operations.

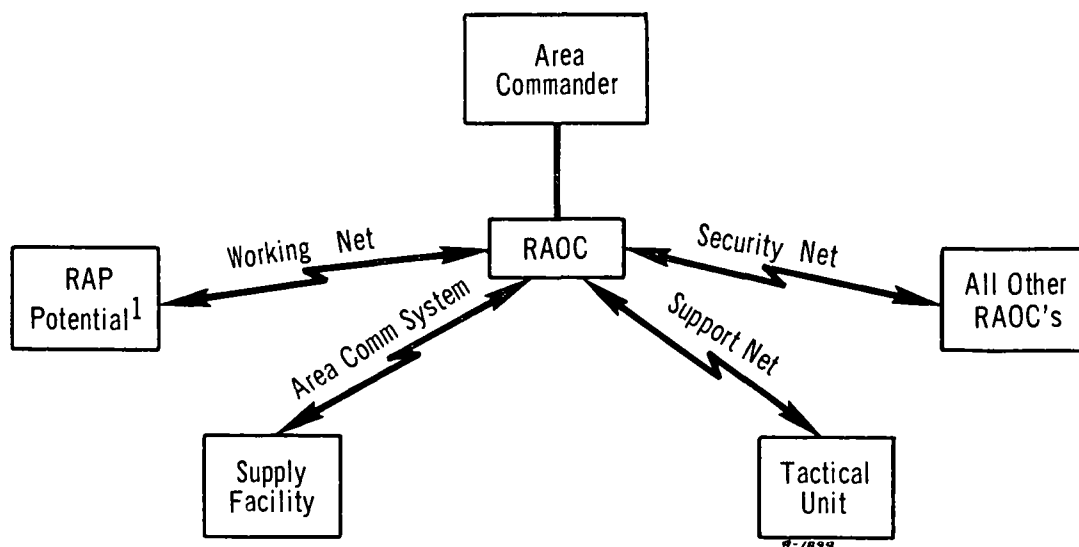
7-6. References

a. For additional details on the concept, organization, and operations of RAP, see FM 19-45-1 (Test).

b. For additional details on NBC functions and responsibilities in RAP, see FM 3-1 (Test).

7-7. Base Defense

Base defense consists of local military measures, both normal and emergency, required to nullify or reduce the effectiveness of enemy attacks on, or sabotage of, a base. JCS Pub 2 contains details on base defense operations.



¹RAP potential is that portion of combat support and combat service support units designed and earmarked to perform a secondary RAP mission.

Figure 7-1. RAOC communications.

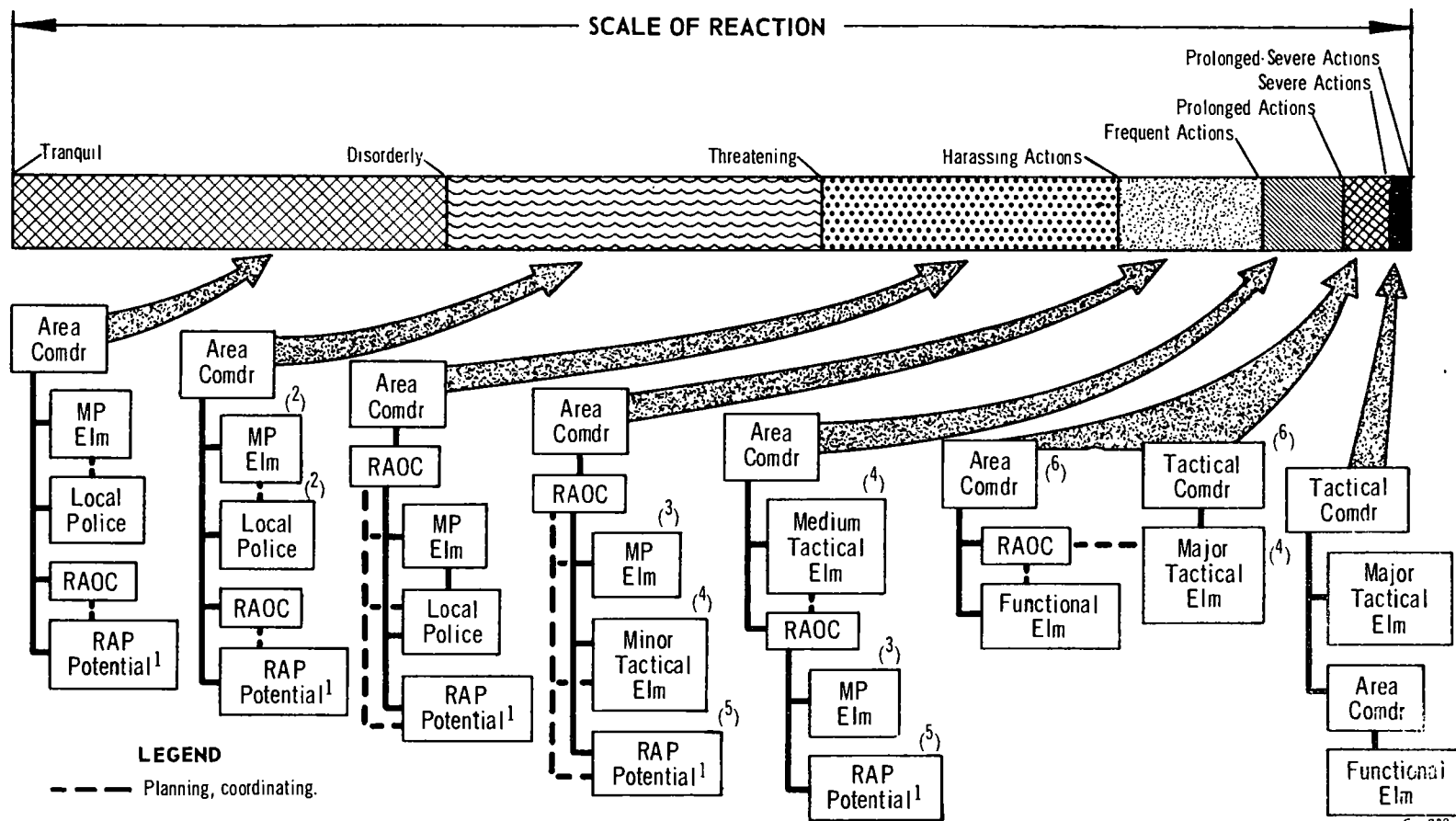


Figure 7-2. Command and control spectrum for RAP.

PART TWO

LOGISTICS

CHAPTER 8

LOGISTICS—GENERAL

8-1. General

a. The objective of logistic support is the timely provision of adequate supplies and services to combat elements.

b. Logistics is the science of planning and carrying out the movement and maintenance of forces. In its most comprehensive sense, logistic aspects of military operations deal with—

(1) Design and development, acquisition, storage, movement, distribution, maintenance, evacuation, and disposition of materiel.

(2) Movement—evacuation and hospitalization of personnel.

(3) Acquisition or construction, maintenance, operation, and disposition of facilities.

(4) Acquisition or provision of services.

c. Logistic functions in theaters of operations are supply, maintenance, transportation, construction, labor, and other services.

d. General principles governing establishment and operation of the logistic system in theaters of operations include—

(1) Minimum handling of supplies.

(2) Minimum supply, maintenance, and service installations.

(3) Maximum dispersion of logistic installations and units consistent with logistic support requirements, control, and security.

(4) Maximum use of existing facilities, local supplies and utilities, captured materiel, civilian personnel, and prisoners of war.

(5) Maximum economy of resources.

(6) Maximum use of alternate routes.

8-2. References

a. Details on the organization and operations of the theater army support command (TASCOM) and the field army support command are in FM 54-7 and FM 54-3, respectively.

b. Details concerning staff functions, estimates, plans, orders, records, and reports for logistics are in FM 101-5.

c. Details on organization, technical, and logistic data are in the FM 101-10-series, as well as in the 8-, 9-, 10-, 29-, 38-, 54-, and 55-series field manuals.

d. Details concerning joint logistic policy and guidance are in JCS Pub 2 and JCS Pub 3.

e. Basic policies and principles for inter-service and interdepartmental logistic support are in AR 1-35.

8-3. Logistics Support of Combat Operations

The modern battlefield will be the scene of highly fluid combat operations that present extraordinary logistics problems. Such operations, combined with use of mass-destruction weapons, will require increased emphasis on one or more of the following procedures:

a. Pooling motor transportation from units in the communications zone and in the combat zone.

b. Reducing the allocation of supplies for some forces to insure an adequate supply for forces engaged in more crucial operations.

c. Diverting logistic units from less essential tasks to support the main effort.

d. Positioning supplies to support detached or withdrawing forces.

e. Regulating and controlling movement of supplies and troops across major obstacles.

f. Providing increased security for logistic installations and lines of communications.

g. Keeping supplies mobile.

h. Redistributing promptly uncontaminated supplies and equipment, particularly vehicles, of ineffective units.

i. Using local resources to the maximum permitted by the laws of land warfare.

j. Establishing priorities to insure availability of transportation for the most urgent requirements.

8-4. Logistic Support of Special Operations
Operations in mountains, jungles, deserts, snow, and extreme cold and airborne, airmobile, amphibious, and riverine operations may require modification of normal logistic procedures. The procurement of specialized equipment to support these special-type operations may involve long leadtimes, which, in turn, create a requirement for long-range estimates and expedited processing. When necessary, major commanders may request operational projects (AR 725-65) for stockage of supplies and materiel in the theater or the continental United States for the purpose of supporting specific operations, contingencies, or war plans for a specific geographic area.

a. Operations in jungles, snow, and extreme cold require specialized equipment and modification of normal distribution, storage, and evacuation procedures because of extreme weather effects and restricted lines of communications. Operations in mountains may rely heavily, or altogether, on aircraft, men, and animals for transportation. Environmental effects on personnel and equipment emphasize the importance and increase the difficulties of performing maintenance.

b. Desert operations present problems in water supply. The accumulation of sand in equipment hampers operations and, together with wide daily temperature ranges, creates unusual supply and maintenance problems.

c. Amphibious operations require close Army, Navy, and Air Force coordination in establishing and maintaining logistic support of forces ashore (FM 31-11 and FM 31-12).

d. In airborne operations, airborne force commanders are responsible for logistic support that accompanies assault forces. The TASCOM assists in mounting an airborne operation and provides logistic support during the operation, including followup supply. Normally, the area support command area support group in whose area the marshaling site for

the airborne operation is located provides this support. To accomplish this support, the area support group must be augmented to provide an airdrop capability, communications between the marshaling site and appropriate elements of the area support group, medical support for the operation, and direct support ammunition supply for the airborne force. The area support group deliver supplies to airfields for Air Force delivery to forces in objective areas. After surface linkup, normal supply procedures are applicable (FM 57-1 and FM 61-100).

e. Airmobile operations require detailed logistic planning. Planners give special consideration to the numbers and types of aircraft available for supply missions as well as to the stocks of fuel and ammunition needed for resupply.

f. In riverine operations, the established principles of combat service support for the major combat units (divisions, corps, and field armies) are applicable. With some variations, the logistic techniques, procedures, and organizational concepts governing support of ground and airmobile operations also apply. The basic peculiarity of riverine operations is the extensive use of ships and watercraft for all types of logistic support. Combat service support of a riverine operation is primarily support of land and afloat bases and support of operations launched from these bases. FM 31-75 (Test) contains details on riverine warfare, including combat service support. Paragraph 11-17, this manual, discusses the use of inland waterways for transportation.

8-5. Logistic Support of Unconventional Warfare Operations

a. Predominantly indigenous personnel, usually supported and directed in varying degrees from an external source, conduct unconventional warfare (UW) operations in hostile areas. Unconventional warfare includes the three related fields of guerrilla warfare, evasion and escape, and subversion.

b. The commander of the joint UW task force (JUWTF) is responsible to the theater commander for the conduct of UW, but each component Military Service is responsible for

logistic support of its forces assigned to the JUWTF. The JUWTF plans and coordinates logistic support for UW operations in the theater and works directly with the logistic headquarters of each theater Military Service component to insure support of attached Army, Navy, or Air Force units.

c. Based on approved theater operation plans, the JUWTF headquarters provides the TASCOM logistic estimates for support of Army elements of UW operations. These estimates entail considerable leadtime due to many nonstandard, obsolete, and special items required to support the many different operations peculiar to UW. The estimates are complex because of the varied geographic locations of the operational areas and the varying sizes of forces. Direct coordination between the TASCOM and the JUWTF determines necessary deviations to the planned support, and use of operational project stocks (AR 725-65) may be practicable. Considerable leadtime may not be possible in the case of some items. Because of the sensitivity of some operations, it may be necessary to meet immediate requirements with no leadtime.

d. Details concerning logistic support of UW operations are in FM 31-21.

8-6. Logistic Support of Stability Operations

Support of the assigned mission is the basic consideration in planning and organizing logistic support of stability operations. Support requirements may range from those necessitated by a variety of combat situations involving either U.S. or allied forces, or both, to those involving training in and conduct of military civic action programs. A quick-reaction procurement system will meet requirements for nonstandard items through the procurement of commercial items.

a. The combat service support system provides adequate support for all types of stability operations; however, the techniques for logistic support in areas separated from organic combat service support units may vary considerably from those used in conventional operations. These principles and techniques for support are applicable to both U.S. and indigenous

forces. Flexibility, responsiveness, and improvisation are key factors and can be accomplished by—

(1) Advance planning, so that units have the minimum-essential supplies and equipment consistent with contemplated operations. This is particularly important for operations in remote areas and where adverse weather and climatic conditions are prevalent.

(2) Stocking supplies at echelons below those at which stockage is normally maintained to expedite supply (e.g., at brigade, regimental, or group bases of operations in readily accessible areas and at battalion bases of operations in remote areas).

(3) Making forces assigned to stability operations as self-sufficient as practicable. Payment for food, supplies, equipment, materials, and facilities requisitioned for military use avoids undesirable psychological effects. In areas where food or other supplies are scarce, local purchase or requisitioning should be prohibited.

(4) Accomplishing logistic support by air or water when land transportation cannot provide timely support.

b. In many countries, particularly those receiving assistance under the Military Assistance Program, the host country army combat service support system is similar to that of the U.S. Army. In many cases, host country combat service support activities follow the same regulations and procedures as the U.S. Army. U.S. Army personnel trained and experienced in Army supply concepts and doctrine advise host country forces, and many host country key logistic personnel have studied at Army installations and schools in the United States. Such system similarity will increase the effectiveness of U.S. Army combat service support for host country forces, as well as for U.S. Forces. However, it is not the task of the Army elements to change the host country combat service support system to conform with that used by the United States. Rather, the task is to help host country forces make their system operate as efficiently and effectively as possible.

c. Organizational and geographic decentralization of combat service support of military units committed against insurgent forces may be the normal supply procedure in stability operations. The deployment of the command and its organization for combat will usually dictate modification of conventional combat service support structures and procedures to provide effective support of combat operations.

d. Combat service support units are well suited to provide humane and civil relief services in support of civil affairs operations, such as restoring public works and furnishing food, clothing, and medical treatment. When such support is required, and when the necessary units and supplies are available, assistance of this type facilitates accomplishment of the stability operation mission.

CHAPTER 9

LOGISTICS—SUPPLY

Section I. GENERAL

9-1. Introduction

Supplies are the commodities necessary to equip, maintain, and operate a military command. Military services divide supplies into general classes for planning and administrative purposes. These classes of supplies are as follows:

- a. Class I—Subsistence.
- b. Class II—Clothing, individual equipment, tentage, organizational tool sets and toolkits, handtools, administrative, and housekeeping supplies and equipment.
- c. Class III—POL: Petroleum fuels, lubricants, hydraulic and insulating oils, preservatives, liquid and compressed gases, bulk chemical products, coolants, deicing, and antifreeze compounds, together with components and additives of such products, and coal.
- d. Class IV—Construction: Construction materials to include installed equipment, and all fortification/barrier materials.
- e. Class V—Ammunition: Ammunition of all types (including chemical, biological, radiological, and special weapons), bombs, explosives, mines, fuses, detonators, pyrotechnics, missiles, rockets, propellants, and other associated items.
- f. Class VI—Personal demand items (non-military sales items).
- g. Class VII—Major End Items: A final combination of end products which is ready for its intended use; e.g., launchers, tanks, mobile machine shop, vehicles.
- h. Class VIII—Medical materiel, including medical-peculiar repair parts.
- i. Class IX—Repair Parts (Less Medical—peculiar Repair Parts): All repair parts and components to include kits, assemblies, and sub-assemblies, reparable and nonreparable, re-

quired for maintenance support of all equipment.

j. Class X—Materiel to support nonmilitary programs; e.g., agricultural and economic development, not included in classes I through IX.

9-2. Basic Supply Terminology

Figure 9-1 illustrates terms used in the planning and control of supply. Terms are defined and explained in *a* through *k* below.

a. *Level of supply*—A general supply term used for planning purposes and in the control of supply operations for expressing quantities of supplies or materiel authorized or directed to be held in anticipation of future demands. Levels may be expressed in days of supply or in quantity per item.

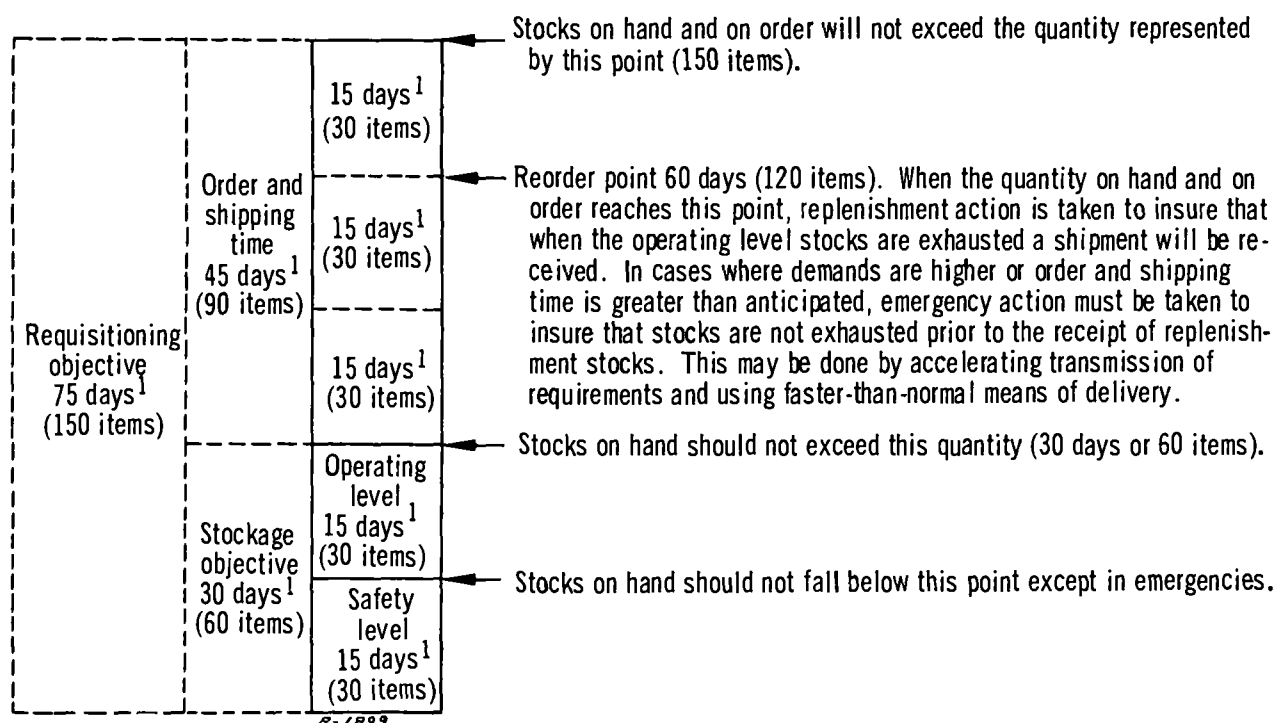
b. *Due in*—The quantities of materiel expected to be received under outstanding procuring and requisitioning instruments and quantities from other sources, such as transfer, reclamation, and recovery.

c. *Order and shipping time*—The time between the placing of an order for supplies and the receipt of the materiel.

d. *Operating level*—The quantities of materiel required to sustain operations in the interval between requisitions or the arrival of successive shipments.

e. *Safety level*—The quantity of materiel, in addition to the operating level of supply, required to be on hand to permit continuing operations in the event of minor interruption of normal replenishment or unpredictable fluctuations in demand.

f. *Procurement leadtime*—The time between placing an order to purchase an item and receipt of the item in the supply system.



¹Days of supply. Corresponding quantities of items shown in parentheses are based on demand experience of two items per day.

Figure 9-1. Illustration of level of supply formula.

g. Reorder point—That point, expressed quantitatively in days of supply, at which time a routine replenishment requisition must be submitted. The reorder point consists of the order and shipping time plus the safety level.

h. Requisitioning objective—The maximum quantities of materiel authorized to be on hand and on order to sustain current operations. The requisitioning objective consists of the sum of stocks represented by the operating level, the safety level, and the order and shipping time or the procurement leadtime, as appropriate.

i. Stockage objective—The maximum quantities of materiel authorized to be on hand to sustain current operations and to meet unforeseen requirements. The stockage objective consists of the sum of stocks represented by the operating level and the safety level.

j. Reserves—

(1) Supplies over and above immediate operational requirements.

(2) Supplies authorized for retention for a specific purpose, such as war reserve contingency plans and equipping newly activated

units or units arriving in the theater without equipment.

k. Super high-dollar-value items—A relatively small group of *selected* end items and repair parts whose dollar value (annual demands or unit cost, or both) represents a considerable investment to the Department of the Army.

9-3. Fundamentals of Supply

a. Supply must be responsive in detail, rapid in action, and simple in operation. It must be adjustable to requirements of supported units and capable of satisfying fluctuating demands.

b. The organization for supply encompasses—

(1) A system for stocking during peacetime for wartime requirements of combat-essential items to insure an automatic supply capability to sustain operations pending the establishment of wartime supply procedures or the reestablishment of normal peacetime supply channels. Theater commanders and the Commanding General, U.S. Continental Army

Command, specify these combat-essential items in accordance with AR 11-8.

(2) Personnel and facilities to receive, store, maintain, and distribute or issue supplies and equipment.

(3) An action agency at each echelon of supply distribution that responds to requirements by directing issue, calling supplies forward for delivery to user, or placing demands on the higher echelon for action, whichever is most appropriate.

(4) Personnel to plan the supply operation and coordinate or supervise its execution; assign supply missions; and recommend or enforce policies, allocations, and priorities.

c. The supply operation recognizes the potential of automatic data processing equipment (ADPE). It uses ADPE, together with an effective communications system, to compile and transmit supply data and process management information. Additionally, the supply operation includes—

(1) A responsive requisitioning system.

(2) An inventory control (or supply management) system capable of providing current information on the amount, location, and condition of stocks on hand; of balancing current and anticipated requirements against known assets; and of disposing judiciously of excess stocks.

(3) Supply on a functional basis in both the field army and the communications zone (COMMZ).

(4) Close coordination and exchange of information with continental United States (CONUS) support systems and provision for the transition from a peacetime environment to a wartime posture.

(5) Designation or categorization of mission to relate supply to other combat service support operations and to facilitate assignment of supply responsibilities to specific levels of command. These designations are—

(a) Direct support (DS) supply, which is the supply support provided to using troops and units. In theaters of operations, DS supply is essentially customer-oriented in objective and retail in nature.

(b) General support (GS) supply, which is the supply support provided to divi-

sions and DS supply units. General support is essentially commodity-oriented in objective and wholesale in nature.

9-4. Responsibilities for Supply

a. *Theater Commander.* The theater commander insures that forces in the theater receive adequate supply support. Generally, each Military Service is responsible for its own supply support, except as otherwise provided for in agreements. The theater commander allocates supplies among the Military Services when such action is necessary.

b. *Theater Army Commander.* The theater army commander provides supplies to U.S. Army Forces in the theater and supports the U.S. Navy, U.S. Air Force, and other forces and activities as directed. The theater army commander—

(1) Executes his responsibility for operation of the theater army supply system through appropriate major subordinate commanders. He provides broad supply plans and policies for guidance of subordinate commands.

(2) Establishes policies regarding priorities for allocation of resources among major subordinate commands of theater army. Normally, he accomplishes this through policy directives covering the several classes of supply. He may allocate specific items because of their special nature or critical status.

(3) Arbitrates differences among major subordinate commands with respect to supply support.

(4) Conducts inspections of supply activities of major subordinate commands.

(5) Provides guidance on the troop basis to be supported; normal authorizations; project and special authorizations, including those for contingency operations and reserve authorizations.

(6) Prepares, maintains, and reviews operational project requirements and recommends their approval to the Department of the Army (AR 725-65).

(7) Establishes, within authorized theater levels, supply levels for major subordinate commands.

c. *Major Subordinate Commanders (COMMZ).*

(1) *Theater army support command commander.* The theater army support command (TASCOM) commander is responsible for supply operations, based on the theater army commander's directives and policies. Except for those supplies for which the Navy or the Air Force has responsibility, the TASCOM commander provides supplies to Army forces in the theater and to Navy, Air Force, allied forces, and other activities as directed. The TASCOM commander does not become involved in day-to-day or detailed operations. He executes his responsibility for operation of the supply system through the supply and maintenance command (SMCOM) and the area support command (ASCOM) as outlined below.

(2) *SMCOM commander.* The SMCOM commander is responsible to the TASCOM commander for providing GS supply (less medical) to U.S. and such other forces and activities in the theater as directed.

(3) *ASCOM commander.* The ASCOM commander is responsible to the theater army commander for providing DS supply (less medical and ammunition) to the TASCOM, to units passing through or located in the COMMZ, and to such other forces and activities as directed (FM 54-6).

d. *Major Subordinate Commanders (Combat Zone).*

(1) *Army group commander.* Paragraph 2-18 discusses the responsibilities of the army group commander for supply.

(2) *Field army commander.* The field army commander (para 2-19) supplies the field army and such other forces as directed. He executes his supply responsibility through the field army support command (FASCOM) (para 2-20).

(3) *FASCOM commander.* The FASCOM commander is responsible to the field army commander for supply to field army units. He is primarily responsible for the planning and execution of assigned combat service support missions.

(4) *Corps commander.* The corps commander is in the chain of supply primarily

when the corps operates independently. When the corps is part of a field army, the corps commander influences supply in respect to corps troops only, as indicated in paragraph 2-21. He also establishes supply priorities and available supply rates and allocates NBC weapons for corps troops and all attached units (e.g., divisions, separate brigades, and armored cavalry units). When the corps operates independently, the corps commander assumes full supply responsibilities for his corps. A corps support command (COSCOM), as outlined in paragraph 2-22, controls and supervises supply as specified by the corps commander.

(5) *Support brigade commander.* Support brigades are major subordinate commands of the FASCOM. The support brigade commander is responsible to the FASCOM commander for supply to such forces as directed. The army support brigade commander supports units in the field army service area. Each corps support brigade commander supports divisional and nondivisional units in the corps area. The corps support brigade commander, while under the command and control of the FASCOM commander, maintains constant liaison with the supported corps commander in matters concerning supply and service (FM 54-4).

(6) *Division commander.* The division commander supplies units assigned or attached to his division (FM 61-100). He executes his supply responsibility through the division support command (DISCOM).

(7) *DISCOM commander.* The DISCOM commander is the principal supply support operator for the division. He is responsible to the division commander for carrying out the supply support plan, as well as assisting in its development (FM 54-2).

(8) *Other commanders.* Commanders of separate Army units supply their own elements and make their needs known to the appropriate supporting supply echelon. They normally obtain supplies in accordance with arrangements made with the appropriate supporting commands.

Section II. SUPPLY MANAGEMENT

9-5. General

Supply management, which is synonymous with inventory control, is the integrated system of organization, procedure, and data collection and transmission by which balanced supply is achieved.

a. The functions that the Army considers elements of the supply management system are—

- (1) Computation of supply requirements.
- (2) Procurement of the required supplies.
- (3) Stockage and distribution of supplies to meet consumer needs.
- (4) Maintenance required while items are in the inventory.
- (5) Disposal of items when no longer needed.

b. The order of listing of the elements in *a* above, will not necessarily be applicable in the actual management of an operating system. On the contrary, supply management encompasses all the supply tasks listed above in appraising the entire process of supply as an interrelated chain of activities from procurement through distribution to consumption or disposal. Supply management includes supply control and stock control.

9-6. Supply Control

Supply control is the process by which, through a system of reports, computations, and evaluations, demands for an item of supply are balanced against assets of the item. This allows definitive supply action in the form of budget estimates and procurement, disposal, or allocation.

a. The supply control system provides a systematic means for maintaining the best possible balance between total supply and demand to insure timely provision of needed materiel, to prevent accumulation of excess stocks, and to determine quantities of stocks available for redistribution or disposal. The system requires that essential data concerning the supply-and-demand status of an item be compiled, kept up to date, and centrally controlled.

b. The basic elements of a supply control system are—

- (1) Supply policies of the command.
- (2) Stock control records and supply reports. (Supply control, thus, includes stock control.)
- (3) Forecasts of supply requirements and availability.
- (4) Data on the past, present, and future supply status of individual items.

9-7. Stock Control

Stock control is the process by which, through a system of records and reports, pertinent data are maintained on the quantity, location, and condition of supplies and equipment due in, on hand and due out. The function of stock control is to determine the quantities of supplies and equipment available for issue and to maintain records of locations of these items. The objective of stock control is management of supply operations so that distribution occurs with a minimum amount of supplies and equipment in the distribution system.

a. The stock control system includes procedures by which—

- (1) Requisitions are filled speedily.
- (2) Shortages and excesses in stock levels are discovered and reported.
- (3) Surplus, obsolete, unusable, and unrepairable items are located and reported.

b. The timely placing of requisitions and aggressive followup action maintain stock levels. If stock levels fall below the safety level, command action must insure that using units continue to receive their essential requirements. It may be necessary to ration or regulate items in short supply.

c. Stock control efficiency depends on rapid and accurate posting and review of theater army central stock control records; audit of installation records; accurate inventories; and inspection, assistance, and instruction throughout all commands. Use of ADPE simplifies operations and permits timely consolidation of stock control data.

d. Whenever supply levels of a command appear either inadequate or excessive, the commander recommends revision of the prescribed supply level.

9-8. Organization for Supply Management

a. The U.S. Army Materiel Command (USAMC) has ownership and accountability of selected super high-dollar-value secondary items stored in theater support activities above the general support level. The USAMC Worldwide Logistics Management Office coordinates the materiel management program for these items through USAMC logistics management offices (LMO) established in overseas theaters.

b. The theater army commander normally assigns the TASCOM commander responsibility for establishing a theater army inventory control system. Details on inventory control at CONUS national inventory control points (NICP) are in AR 700-5. Paragraphs 9-9 and 9-10 discuss inventory control for the TASCOM and the FASCOM.

9-9. TASCOM Inventory Control

Except for Class VIII items, the inventory control center (ICC) of the SMCOM provides inventory control for the theater army stocks in the COMMZ. The automatic data processing center (ADPC), separate from the ICC, provides automatic data processing (ADP) service for the ICC. The ADPC makes logistic information readily available and permits responsive action. Computer facilities supporting the ICC may process data pertaining to U.S. Army Security Agency (USASA)-managed parts and equipment. To facilitate high-speed supply transactions, the ICC connects electronically to CONUS NICP's, to the TASCOM movement control center (MCC) and maintenance management center (MMC), to COMMZ depots and storage activities, and to the FASCOM ICC.

a. The SMCOM ICC, using the facilities of the ADPC, collates, analyzes, advises, and distributes complete and current information on all supply transactions and associated data. In performing its mission, the ICC—

(1) Computes theater requirements on the basis of accumulated demand data, troop strength, item density, and other guidance from the SMCOM. Computation of requirements subsequently results in requisitioning on the CONUS, procurement in the theater, and repair of serviceable items for return to stock.

(2) Directs procurement by providing to

field procurement detachments pertinent data on items and quantities required and performing such actions as may be necessary in support of the procurement functions of the SMCOM.

(3) Directs distribution and positions supplies in field depots in accordance with the approved distribution plan.

(4) Directs cataloging by maintaining and providing subordinate elements such catalog data information as Federal stock number changes, unit-of-issue changes, and end-item and component identification.

(5) Advises the MMC on requirements that necessitate repair priorities.

(6) Directs disposition of excess items and scrap and identifies items that need to be recovered from salvage for repair and return to stock.

b. While the ICC directly or indirectly influences the activities of operating supply units, it is not in the chain of command. Commodity managers in the center review machine actions and interpose human judgment whenever necessary, making or recommending determinations on actions that are not adaptable to routine machine solution and insuring that the Assistant Chief of Staff (ACofS), supply, has timely and accurate information on which command decisions can be based.

c. The establishment of the SMCOM, with its ICC, does not relieve the TASCOM commander of responsibilities for combat service support. The TASCOM commander is responsible to the theater army commander for executing combat service support operations in the COMMZ. Establishment of the SMCOM emphasizes the direction of general staff activity pertaining to combat service support. At theater army headquarters, staff activity is concerned with overall broad policy guidance; at the TASCOM headquarters, detailed planning and execution; and at the SMCOM headquarters, management of GS supply and maintenance.

9-10. FASCOM Supply Management System

The FASCOM supply management system consists basically of three echelons, ranging from

a stock locator element at the GS unit level, through a stock control capability at the support brigade headquarters level, to an ICC at FASCOM headquarters level. For stock management purposes, supplies issued to DS units and DISCOM's are deleted from the asset records of the theater and field army.

a. Operationally, the system is predicated on decentralized stock locations and centralized stock management activities, which are provided ADP services and electronic communications facilities.

b. A minimum of records is maintained at the GS supply storage location. These records consist of locator files and shipment records.

c. The brigade stock control center (SCC) meets demands from supported units by directing shipments from any source under brigade jurisdiction or by referral to the FASCOM. The SCC makes recommendations concerning levels of supply and additions to or deletions from authorized stockage lists. It forecasts and determines or computes support brigade requirements and provides, as necessary, specified stock records support activities as outlined in Army field stock control regulations. A common computer complex services the SCC and other functional control centers. This promotes centralized control of all supply support in the corps and army support brigades and enhances the response to demands of supported troops. The support brigade commander thus has control over his assets as well as his operating units.

d. The FASCOM ICC is the heart of the FASCOM supply management system. It provides inventory management for all classes of supply (less medical) for which the FASCOM has jurisdiction. The ICC uses electronic equipment to process and transmit supply and stock control information. FM 29-10 contains detailed coverage of the FASCOM ICC.

9-11. Alternate Methods of Control

ADP is neither subordinate to nor a substitute for effective supply. The equipment serves as a tool of management, not as its replacement. System and service must be mutually supporting, however, in attaining the common objective.

a. Designation of the ASCOM ADP facility as an alternate provides for continuing SMCOM ADP functions in case of emergency. The ASCOM facility receives periodic summary data and records in sufficient detail to permit it to assume the SMC ADP supply function if necessary. Field depots and the staff of the SMCOM ACofS, supply, provide personnel to establish an alternate ICC, if required.

(1) If alternate ADP facilities are not available, scheduled periodic printouts previously provided storage sites by the SMCOM ADPC can be used for short periods in a manner similar to the manual stock record system. Under these circumstances, requisitions that come from the FASCOM ICC and from COMMZ units go to the field depots and other SMCOM supply units as determined by the ACofS, supply, SMCOM.

(2) To insure continuing supply under all contingencies, planning at SMCOM headquarters provides for measures to be taken if there is a disruption in communications between the SMCOM ICC, the FASCOM ICC, SMCOM field depots and other supply units, or ASCOM units. Such measures normally consist of emergency shipments of established quantities and types of supplies from field depots. Requirements can go by airmail or air courier if communications between the SMCOM ICC and NICP's are disrupted.

b. To insure continued and uninterrupted management in the field army, there is a completely integrated system of alternate capabilities.

(1) The FASCOM ICC can temporarily assume the functions of any one brigade SCC.

(2) The SCC of each support brigade can act temporarily as the ICC for its own assets.

(3) Except for class V supply, the army support brigade SCC can temporarily assume the functions of the FASCOM ICC. For class V supply, the SMCOM ICC serves as the alternate for the FASCOM ICC.

c. In the event of complete system disruption, requesting organizations go directly to the storage locations rather than to the SCC's. In general war, there may be situations in which contact with combat units and forward supply units is broken for sufficient time to

warrant emergency resupply. In these situations, the GS units in the field army service area or forward depots in the COMMZ automatically ship predetermined survival supplies to affected forward areas, based on directives

from the FASCOM or the SMCOM ICC. Further, if storage locations fail to receive shipping directives from SCC's or ICC's for a specified period of time, there is automatic shipment of items on predetermined lists.

Section III. REQUIREMENTS

9-12. General

Supply requirements are a statement, in a plan or a request, of the need for specific quantities of supplies and equipment for specific periods of time or at specified times.

a. Classification of requirements is as follows:

(1) *Initial supply requirements* to provide for initial issue of supplies or to fill shortages in the initial issue.

(2) *Replacement and consumption requirements* to keep initial equipment at authorized quantities and to replenish supplies consumed or expended, lost, contaminated beyond the limit of reclamation during enemy NBC operations, or destroyed.

(3) *Reserve requirements* to establish or replenish an approved reserve (AR 11-8 and AR 11-11).

(4) *Operational project requirements* to authorize major commanders to acquire materiel for theater or CONUS stockage for the purpose of supporting specific operations, contingencies, or war plans for a specific geographic area.

b. In the theater of operations, commanders must know their authorizations for supplies and equipment and the quantities on hand as a basis for requisitioning and planning. To insure availability of proper types and adequate quantities of supplies for current and projected operations, the TASCOT staff requires information on strategic and tactical plans as far in advance as possible. The FASCOM staff also must know the kinds and quantities of supplies planned for procurement or available for projected operations.

c. In initial stages of mobilization, supply requirements represent, for the most part, needs for initial issue. In later stages, most requirements represent needs for replacement and replenishment (resupply). The Department of

the Army computes these supply requirements on the forecast of troop deployment, theater stockage objective or supply levels, theater replacement factors, and consumption rates. Theater army commanders must forecast their own requirements at the earliest possible date since obtaining supplies on a large scale may require a leadtime of many months.

d. Staff planners develop the gross tonnage estimate of supply requirements. This estimate provides the basis for other important planning considerations, such as transportation, troop, and construction requirements. Planners also develop the specific quantities of each line item required.

9-13. Initial Supply Requirements

a. Bases for the determination of initial supply requirements are current tables of organization and equipment (TOE), tables of distribution and allowances (TDA), additive operational projects (AR 725-65), and similar authorizations. Periodic compilations of these requirements preclude initial supply shortages and help determine replacement, consumption, and reserve requirements.

b. In an oversea command, accurate computation of initial supply requirements depends on a knowledge of—

(1) Troop basis and allowance authorizations under which the troops and installations are to be supplied.

(2) Status of supplies in the hands of troop units.

(3) Dates of arrival or activation of troop units.

(4) Civilian supply requirements.

c. Computation of requirements and determination of shortages are staff functions. Commanders and staffs must provide the appropriate combat service support organization with such data as troop basis, status of sup-

plies in the hands of troop units, phased arrivals, operation plans, and the period for which computations are to be made.

9-14. Replacement and Consumption Requirements (Resupply)

a. Successful operation of an organization demands that supplies be available when needed. When supplies are received daily, needs can be met with a minimum operating level of supply. When supplies are received less frequently, it is usually necessary to increase levels of supply. Bases for the computation of replacement and consumption requirements are authorized days of supply and the following:

- (1) Projected troop strength for the period.
- (2) Changes in composition of the force supported.
- (3) Seasonal requirements.
- (4) Anticipated operations that create special requirements.
- (5) Revision of replacement factors and consumption rates as a result of additional experience.

b. Determination of daily or periodic replacement and consumption requirements is a staff function. The logistics staff member concerned receives the information affecting requirements in sufficient time to meet demands for contemplated operations. Commanders and staffs are responsible for obtaining necessary experience data from using units to improve the factors used in determining requirements.

9-15. Reserve Requirements

Reserve requirements represent quantities of items in excess of immediate needs to meet anticipated demands. They include supplies prescribed for particular purposes, such as contingency reserves and equipment for newly activated organizations. Commanders are responsible for obtaining authorizations for reserves and for issuing directives and guidance to the appropriate Military Service or subordinate commands for accumulation and replenishment of reserves.

9-16. Operational Project Requirements

a. AR 725-65 contains a detailed definition

and discussion of operational projects and the procedures for establishing them.

b. Operational project requirements represent supplies that may be included in normal allowances and that are necessary to perform a specific task. An approved operational project requirement is one for which supply, including necessary procurement, has been authorized by the Department of the Army.

c. Operational project requirements are of two types—additive requirements and nonadditive requirements.

(1) *Additive operational project requirements.* Additive requirements are those in addition to normal allowances (TOE, modification table of organization and equipment (MTOE), TDA, modification table of distribution and allowances (MTDA), theater stockage level document (AR 11-11), and common tables of allowances) for the Five Year Defense Program. Upon approval by the Department of the Army, this requirement increases the authorized acquisition objective (AAO) (AR 725-65) by the amount contained therein.

(2) *Nonadditive operational project requirements.* Nonadditive requirements are of two types—U.S. force requirements and non-U.S. force requirements.

(a) *U.S. force requirements.* These requirements are already part of the AAO and represent allowances authorized in TOE or MTOE. The project is merely a vehicle for identification and management of the required stocks. One example of this type of requirement is the prepositioning of materiel in the CONUS. Another example is the prepositioning in overseas areas of unit sets of equipment that are appropriately configured to units to be airlifted to overseas areas.

(b) *Non-U.S. force requirements.* These requirements are necessarily nonadditive to the U.S. Army AAO.

d. Operational projects enable planning of mobilization reserve requirements, either as additive or nonadditive supply authorizations. Operational project requirements may originate in a theater or may be part of the Department of the Army plan for a specific operation. Theaters must submit operational project requirements early so that the Department of the

Army can consolidate demands of all theaters for orderly and economical procurement and supply. Long procurement leadtimes may make it necessary for the Department of the Army to initiate operational project requirements before a theater commander or theater army commander is designated. Operational project requirements so initiated may require revision later based on theater recommendations.

e. Operational project requirements include lists of materials and shipping schedules. Theaters may prepare complete lists of materials, but frequently the Department of the Army prepares them, based on a general statement of the task to be accomplished. The latter method has advantages, especially where construction is necessary, because technical specialists familiar with design, nomenclature, and sources of materials are usually more readily available in the CONUS.

f. The theater army commander's responsibility for operational project requirements includes—

- (1) Reviewing Department of the Army authorized operational projects to determine their suitability and to recommend necessary changes.

- (2) Determining the need for additional operational projects and, where applicable, obtaining Department of the Army assistance and approval.

- (3) Issuing necessary directives to subordinate commanders to obtain needed supplies and to take action to complete the operational project requirement.

- (4) Allocating tonnage made available to him for movement of materials to the theater.

g. Examples of projects that must receive special consideration include—

- (1) Fixed signal installations.

- (2) Base installations, including depots, shops, assembly areas, port facilities, hospitals, rest areas, military confinement facilities, prisoner-of-war enclosures, Army exchanges, and postal systems.

- (3) Rehabilitation or construction of transportation facilities, airfields, petroleum pipelines and related facilities, field fortifications and protective construction, and barriers.

- (4) Specialized equipment (e.g., helicop-

ter external lift slings) and increased levels of supply needed for special operations.

9-17. Levels of Supply

The Department of the Army prescribes levels of supply for theater army in terms of days of supply (AR 11-11). There are two broad areas of levels of supply—peacetime operating stocks and war reserves. Usage factors and experience data vary among different items of supply. It is necessary to convert days of supply to pounds per man per day or to other quantitative units to serve other logistic purposes. Collectively, these levels constitute the stockage objective (para 9-2) of the command concerned and permit requisitioning, control, movement planning, and associated activities. The theater stockage objective includes all stocks in and in transit to the theater, except those in the hands of using units and DS and GS supply facilities.

a. The theater army commander prescribes levels for the combat zone and the COMMZ. He may prescribe levels for subordinate commands or delegate such authority to the TASCOM and field army commanders. Factors considered in establishing levels include—

- (1) Levels prescribed for the theater army commander by higher authority. These levels represent the maximum stockage authorized.

- (2) Supply levels prescribed for the combat zone and the COMMZ.

- (3) Locations of subordinate commands.

- (4) Order and shipping time between organizations, to include consideration of vulnerability of routes.

- (5) Character and relative importance of the combat missions of supported tactical units.

- (6) Vulnerability of supply installations.

- (7) Estimated reliability of resupply capability.

- (8) Estimated wartime requirements for materiel for which increased demand is expected under combat conditions.

- (9) Requirement for mobility.

- (10) Requirement for civil assistance.

- (11) Availability of local supplies for military procurement.

b. Supply levels at the various theater army echelons are not fixed.

(1) The field army has a low supply level to facilitate required mobility. Normally, the supply level applies to items consumed at a reasonably predictable rate. Stocks maintained in field army supply installations include operating levels of fast-moving items to support daily consumption. Reserve stocks are for emergency issue only. A reserve of end items is normally in dispersed locations to serve as replacements for battle losses and for items that are not within the field army maintenance capability or capacity.

(2) Amounts actually stored at each echelon vary among commodities and items within each commodity grouping, based on supply actions directed by the SMCOM and the FASCOM. At the GS level, about 70 percent of the supplies in the COMMZ is in rear depots.

c. Increasing the speed with which requisitions are prepared, transmitted, and processed and increasing the speed and reliability of supply shipments reduce the required number of days of supply in a theater army supply system.

9-18. Stockage

a. *General.* Use of ADPE and reliable communications permits selective stockage at all echelons throughout the theater. Use of the selective stockage principle, in accordance with AR 711-16 and AR 711-25 and within criteria established by the theater commander, reduces problems incurred by stockage of large numbers and types of supplies. The selective stockage principle is, in application, that each echelon stocks items most frequently demanded by supported organizations and relies on responsive support to furnish those items that do not meet stockage criteria. The bases for stockage at each echelon are demand experience, combat essentiality, and estimates of future requirements.

b. Responsibilities.

(1) The NICP's convert Department of the Army-approved theater stockage objectives into a theater authorized stockage list, which is a means of informing the theater army commander of the theater authorized level. This is

accomplished in accordance with Department of the Army instructions, subject to the directive authority of the theater commander as outlined in paragraph 2-8f.

(2) The theater army commander may add or recommend additions of items to the list. The NICP's may recommend additions or deletions and recommend revisions in the case of newly introduced equipment.

c. Field Army Stockage.

(1) Inventory control, stock control, and storage elements of the FASCOM maintain an up-to-date list of all items authorized for stockage. The field army commander may approve additions to the field army stockage list; however, the theater army commander has authority to establish the effective date of additions or a quantitative change to the requisitioning objective. The theater army commander may delegate this latter authority to the TASCOT and the field army. The field army commander may make deletions to field army stockage lists at any time, subject to acknowledgment on an after-the-fact basis by the theater army commander.

(2) Field army stockage includes—

(a) Items authorized for stockage by supported units.

(b) Mission-essential support items.

(c) Operational readiness float items.

(d) Items qualifying for stockage based on the demand frequency criteria.

(e) Items for support of newly introduced equipment.

(f) Reserve stocks when authorized.

d. *TASCOT Stockage.* Stockage at TASCOT depots includes—

(1) Items authorized for stockage at the FASCOM and DS and GS units supported directly from theater depots.

(2) Mission-essential support items.

(3) Operational readiness float items.

(4) Items not stocked in the FASCOM because the field army demand is too low, but for which there is a theater demand meeting the criteria for stockage.

(5) Items for support of equipment newly introduced into the theater.

(6) Authorized reserves and obligated stocks.

e. Physical Inventories. Physical inventories on depots and installations insure that stock accounting records reflect the true stock position.

(1) Depots and installations take complete inventory either at a specific time or on a

continuous-cycle basis, as prescribed by the appropriate command.

(2) Depots and installations take special inventories whenever it is necessary to verify or adjust the stock record account of a particular item.

Section IV. SOURCES OF SUPPLY

9-19. General

A theater of operations obtains supplies from sources outside and within the theater. Sources outside the theater include the CONUS, other theaters and allied countries. Sources within the theater include local procurement, captured materiel, and reclamation of supplies through repair.

9-20. Supply From CONUS

Supply from the CONUS on a requisition basis is the normal method of supplying most items to an established overseas command. However, CONUS and other sources usually ship supplies automatically (push shipments) to support a newly established theater or an operational area in which a supply system has not been developed. The CONUS supply system (i.e., USAMC NICP's, Army class manager activities, and The Surgeon General) predetermines these supply requirements and normally develops them on the basis of the pertinent Army component commander's operational plans. As the theater gains control over its supply functions, it furnishes CONUS agencies available supply status information, which is a basis for modifying the automatic flow of items as necessary. The Department of the Army, based on recommendations of the theater commander, prescribes the date on which automatic supply ceases. Coordinated action by all supply agencies is necessary to prevent interruption of supply and to avoid duplication of shipments.

a. While automatic shipments are in effect, units deployed to new theaters take an initial issue of supplies and equipment composed of the basic load (SB 3-39 and SB 38-26), prescribed load, and authorized stockage list/mission load (AR 711-16). These loads enable units to sustain themselves until resupply

is available on a continuing basis. CONUS agencies ship additional replacement and maintenance supplies periodically and automatically in accordance with established schedules. A variation to units deploying with their initial supplies and equipment occurs when units move to areas having prepositioned equipment. Under this procedure, accompanying supplies and equipment are fewer, deployment and employment are more rapid, and automatic supply furnishes continuing support.

b. Army-wide shortages may cause the Department of the Army to exempt certain items from requisitioning and automatic supply procedures. In such cases, the Department of the Army may require theaters to report requirements, quantities on hand, due-ins, shortages, and expenditures. Based on these reports, the Department of the Army allocates available supplies on a distribution schedule and ships them automatically in accordance with priorities. Alternately, the Department of the Army may inform the theater commander of the allocation and authorize him to call the items forward by requisition.

c. Periodic submission of supply requisitions to the CONUS are in accordance with Department of the Army policies (military standard requisitioning and issue procedures (MIL-STRIP)). Except when otherwise directed, the SMCOM forwards requisitions for supplies to CONUS NICP's for action. During peacetime, requisition of DSA-managed materiel is direct, but the Army class manager activities are responsible for mobilization requirements planning.

9-21. Procurement From Other Theaters

Procurement from other theaters is under Department of the Army direction as excesses ac-

cumulate in these theaters or as operational emphasis changes.

9-22. Procurement Within a Theater

a. Procurement from sources within a theater of operations saves time and transportation, reduces the workload in the supply system, and conserves U.S. resources.

b. In procuring local resources, arrangements with allied governments and the needs of local populations are considerations. Useful local resources include supplies and such services as transportation, utilities, and labor. Supplies most desirable for procurement are those whose oversea procurement conserves the most shipping space. Examples are food, solid fuels, petroleum products, ammunition, and construction materials.

c. Local resources may be available through purchase, requisition, or contribution.

d. The theater commander prescribes broad procedures for procurement of resources within the theater of operations, in conformity with local laws and customs, laws of land warfare, and regulations of higher authority. An additional consideration is the international balance of payments.

e. The U.S. Theater Army commander publishes implementing instructions and directives in the form of procurement plans and policies and coordinates with collateral commands and local governments.

f. The TASCOM is normally the Army element responsible for procurement on a theater-wide basis. In cases when operating conditions so indicate, major subordinate commanders may receive limited procurement authority.

g. A general purchasing agency system may be established in the theater in time of war to make maximum use of available local resources in supplying the needs of U.S. Forces and thereby conserving vital air/sealift capability required for support of the theater. When established, this general purchasing system performs the functions of a coordinating staff or board activity rather than those of an operating procurement agency. General guidance is obtained from applicable Department of Defense and Service policies, procedures, and regulations. The agency in the theater designated

as responsible for coordination of logistic planning is also responsible to provide or arrange for the personnel and equipment required to operate the general purchasing agency system. Among the functions of a general purchasing agency system are the following:

(1) Perfect arrangements with the designated representatives of the interested governments for the purchase of needed supplies and equipment, to the extent available, without overtaxing the local economy.

(2) Establish lists of locally available materials for the information of purchasing personnel.

(3) Negotiate standard arrangements with the interested governments for local engagement of services and for the procurement of labor.

(4) Issue regulations necessary to establish policies, procedures, and methods governing purchase of materiel by U.S. agencies in the theater, insuring cooperation between all U.S. purchasing agencies, and preventing competition among these agencies in the local acquisition of supplies and services.

(5) Consolidate purchases of U.S. supply agencies where practicable.

(6) Supervise the purchase and inspection of all supplies bought.

(7) Coordinate local purchase with the overall supply program of the theater.

(8) Maintain liaison and exchange information with general purchasing agents in CONUS and other oversea commands.

(9) Insure that payments for local purchases are made in accordance with governmental policies implementing international agreements.

h. Civil affairs (CA) officers assist procurement agencies in obtaining authorized local resources, uncovering hidden resources, and providing liaison with civilian agencies. CA officers also determine and report the effect of procurement on the local civilian economy and recommend local procurement policies to the commander.

9-23. Reclamation of Supplies

a. Reclamation of supplies through repair restores unserviceable items to serviceable con-

dition and returns them to the supply system for reissue. Parts salvaged from unserviceable items (controlled cannibalization) also are important sources of supply (para 10-3, 10-8, 10-9, and 10-11).

Section V. DISTRIBUTION

9-24. General

Distribution is the function of supply concerned with the receipt, storage, transportation, and issue or final disposition of supplies. The distribution system must integrate these tasks. Efficient distribution requires knowledge of operation plans, availability of supplies, and the needs of using units.

a. Principles. The basic principles of distribution are as follows:

(1) The distribution system must be readily adaptable to changing situations.

(2) Sufficient supplies must be on hand to permit replacement of each day's expenditure prior to commencement of the following day's operation.

(3) Supplies should be located to reduce delay in meeting demands.

(4) The distribution system must make the most efficient use of available transportation and eliminate unnecessary shipment and rehandling of supplies.

(5) Each commander should have under his control only the supplies necessary to accomplish his mission.

b. Documentation. Documentation is the preparation and maintenance of records of the quantity, location, condition, and disposition of supplies. Accurate information is available on materiel required, on hand, due in, and due out and on the routing of materiel in transit.

(1) Requisitions and reports of receipt or nonavailability are essential steps in documentation.

(a) Requisitioning is essentially the placing of demands for supplies and equipment on supply agencies. A requisition may be a verbal or an informal request, an estimate, a call against a credit, a status report, or the empty fuel tank of a vehicle. At depot level and above, a requisition is usually a complete, formal document prepared and transmitted in accordance with MILSTRIP.

b. Decontamination procedures are another means for reclaiming supplies for reissue.

(b) Requisitions within a theater vary among classes of supply because of differences in physical characteristics and methods of handling. Use of ADP, high-speed transmission, and single line-item requisitions speeds the requisitioning process.

(2) The purpose of documentation is to provide supply and shipping information required by the consignor, carrier, and consignee to identify and transport supplies. One document that provides complete information for the agencies concerned is an example of good documentation.

(3) The CONUS air or water terminal is responsible for insuring that shipments are forwarded with proper manifests, addresses, and storage plans. In the theater of operations, TASCOM shipping agencies are responsible for the proper identification of shipments. The shipper normally is responsible for preparation of documents initiating movement.

(4) Documentation provides—

(a) Sufficient information to transportation agencies for control and identification of shipments at transfer points.

(b) Specific supply information to designated combat service support agencies.

(c) Advice to the consignee that the shipment is en route.

(d) A basis of payment to nonmilitary carriers.

c. Marking, Packaging, and Packing. Marking of supplies and equipment normally consists of the address, color-coded markings, and identification of contents. Facilities for loading and unloading and the necessity for conservation of shipping space determine methods of packaging. When suitable materials-handling equipment is available, use of pallets is a consideration. Packaging and packing must insure adequate protection against rough handling and the elements both en route and in storage.

9-25. Storage

a. General. Supplies are stored in depots, supply points, distribution points, ammunition dumps, and all forms of transportation terminals. Depots are usually restricted to the COMMZ and distribution points to divisions. In between, GS and DS supply units operate supply points. Stocks at transportation terminals are in in-transit storage pending further disposition. Handling, shelter and protection are necessary each time supplies are stored; therefore, the number of storage operations should be minimal.

b. Depots. The depot is the basic storage and distribution facility of the supply system, ex-

cept in the FASCOM, where units of the support brigades operate supply facilities. The assigned mission of the depot may include any combination of storage, maintenance, and fabrication. In the theater of operations, the mission normally is limited to GS maintenance; receiving, storing, and warehousing; maintaining stock in storage; and shipping supplies in accordance with distribution instructions.

(1) The field depot is a command-type, group-size organization. It consists of a headquarters and headquarters company, with a variable number of organizations and units assigned or attached. Such organizations include supply units, maintenance units, and special-

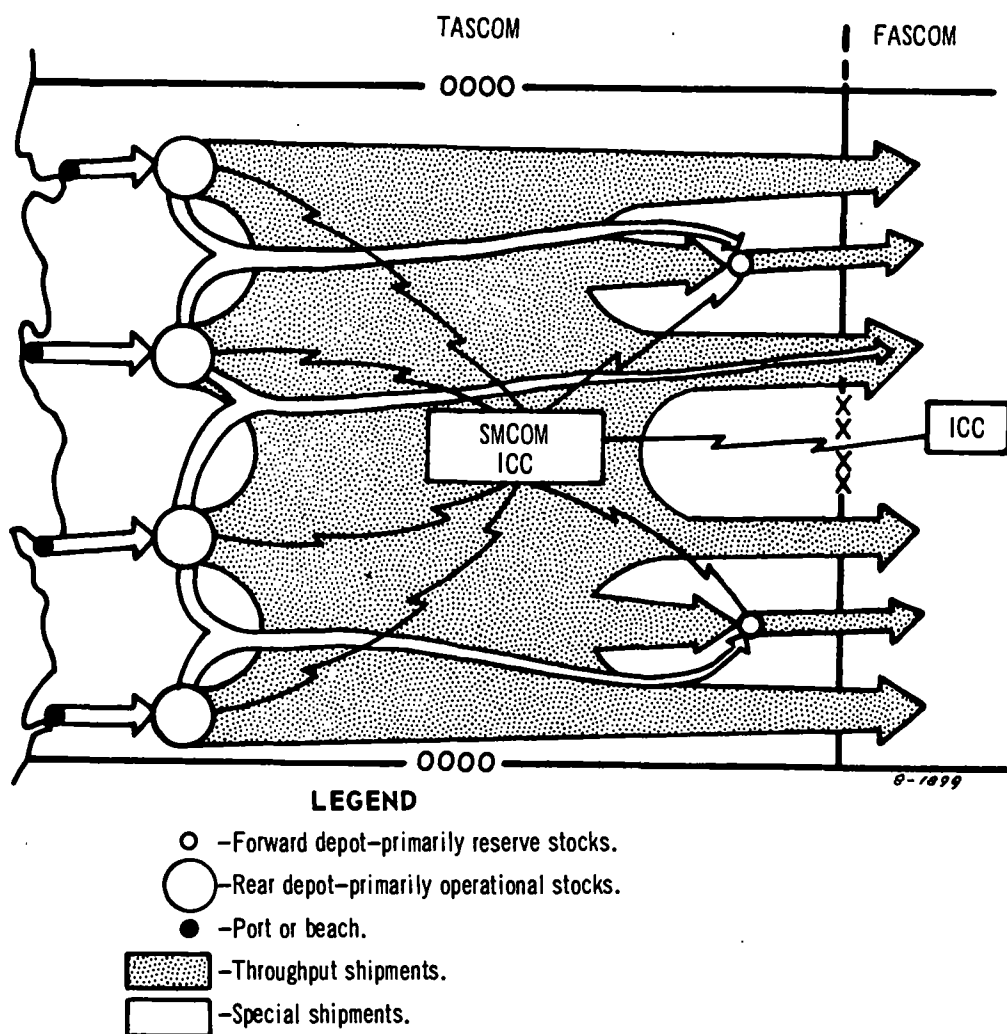


Figure 9-2. Depot distribution pattern (schematic).

ized teams and detachments. The field depot consists of multiple dispersed operational storage and maintenance sites. Counterparts to the field depot in the SMCOM are the petroleum and ammunition groups. Depots are located throughout the COMMZ (fig. 9-2).

(2) Forward depots move as the field army advances. Although the stocks stored in the forward depot are primarily reserve stocks, the depot maintains sufficient operational stock to provide a supply support mission for reasonable employment of the assigned depot units.

(3) Rear depots are near beaches and ports, where supplies normally enter the theater (fig. 9-2). These depots primarily store operational stocks and are sufficiently forward from ports of entry to permit shipment to multiple storage sites with minimum lateral haul. Actual location will depend on topography and rail and road networks, as well as existing facilities. Distribution of stocks in these depots is to meet supply storage and distribution operations rather than to support a particular force. These depots do not maintain a strict balance of stocks; yet, their balance is sufficient to provide dispersion among depots for defensive measures.

(4) The concept for storage operations includes throughput of supplies, minimum administration, maximum mechanized handling of supplies, and improved specialization of labor.

(a) Throughput shipment of supplies is one of the most significant means of reducing inventory requirements. Differences in areas of operations, tactical plans, and enemy capabilities will influence the quantity of throughput that is desirable or that can be built into the supply system.

(b) Depots perform only those administrative functions that pertain to storage operations. These functions include maintaining a locator system, reporting receipts, and processing shipments. The locator system is simple, accurate, and responsive to mobile storage operations.

(c) Supplies stored in the field depot represent bulk quantities that are adaptable to materials-handling equipment. GS is essen-

tially a wholesale operation. The objective is to group those supplies adaptable to palletization and containerization in one supply unit to take full advantage of mechanized handling techniques. However, in addition to equipping the supply units with appropriate mechanized capabilities, preparation, handling, and movement of supplies in a manner compatible with mechanization are essential. Thus, with palletization of supplies in the CONUS, the mechanization chain is not broken until the supplies pass through the supply system to the lowest practical echelon.

(d) The GS supply functions can be subdivided into the tasks and skills required to perform storage operations. To maximize their productivity, supply units are organized to perform related tasks with groups of supplies that have similar handling requirements.

9-26. Theater Distribution

a. The TASCOM SMCOM command and the FASCOM support brigades are responsible for the distribution of all supplies (less medical) in the theater. The medical command and the medical brigade are responsible for the distribution of medical supplies in the TASCOM and the FASCOM, respectively (para 14-23).

b. The TASCOM develops the overall combat service support plan. Based on this plan, the SMCOM, in conjunction with the ICC and the MCC of the transportation command, prepares the supply distribution plan in detail. The plan prescribes the general area location and mission of each field depot petroleum group, and ammunition group. Field depot and group commanders further assign areas, facilities and missions.

c. The SMCOM plans and projects the supply workload for the field depot. The field depot acts as a storage location, following day-to-day instructions from the ICC. The ICC communicates directly with the field depot regarding shipping and receiving instructions. The field depot passes the information to the appropriate storage site. When supplies are received, the storage site verifies the quantity, records the storage location, and forwards the receipt document to field depot headquarters. Field depot headquarters simultaneously up-

dates the field depot locator system and passes receipt information to the ICC by transceiver. The procedures just described apply to the petroleum and ammunition groups of the SMCOM as well.

d. FM 54-5-1 (Test) and FM 54-7 contain details on distribution procedures for the COMMZ. A brief discussion is presented in (1) through (4) below.

(1) The SMCOM ICC receives requisitions or strength reports from the FASCOM ICC for field army requirements and from DS units assigned to the ASCOM for COMMZ requirements. In response to these requisitions or reports, the SMCOM ICC sends shipping directives (or materiel release orders) to the field depots and other GS supply installations in the COMMZ area as shown in figure 9-3.

(2) The ICC places transportation requirements on the MCC, since the ICC has knowledge not only of total supply transportation requirements, but also of the shipping and receiving capability of each supply installation in the COMMZ.

(3) Emphasis is on scheduled supply for mission-essential items and for other items for which requirements can be reasonably predicted. Scheduled supply is a system by which the supplier calculates the quantities of items required by the user and ships them without requisitions on a schedule that is coordinated with the user. The user can modify or change this schedule at any time by notifying the supplier. However, distribution of rapid electronic communications will cause institution of emergency control procedures, using the USAMC

logistic control offices (AR 725-50) in the CONUS.

(4) The throughput concept should have maximum use. Rear depots in the COMMZ normally satisfy field army requests, with delivery as far forward into the combat zone as feasible, bypassing the forward depots. In the event of a disruption of lines of communications or a major forward displacement of the combat forces, forward depots may ship stocks to supplement or replace temporarily deliveries from rear depots. On an exception basis, the ICC, in coordination with the MCC, can request diversion of in-transit shipments.

e. FM 54-3 and FM 54-4 contain details on field army distribution. These details are discussed briefly in (1) and (2) below.

(1) In operation, the support brigade SCC and the FASCOM ICC exploit the full potential of ADPE. Transceivers, card-punch machines, and other mechanical devices and a reliable communications net complete the means available for rapid and accurate transmission of supply information.

(2) Divisional and nondivisional DS units transmit supply requirements to the appropriate support brigade SCC, which issues shipping instructions to storage units. If the required items are not available among the stocks controlled by a particular SCC, the center transmits the requirements to the FASCOM ICC, which, depending on the situation, may direct shipment from a support brigade that has the item or refer the requirements to the COMMZ for action.

Section VI. COMMODITY SUPPLY OPERATIONS

9-27. Class I Supply

a. Class I supply in a theater of operations is primarily a matter of bulk and great tonnage. Refrigeration is a consideration for some items. To reduce supply administration and physical handling of supplies, the class I system uses as few intermediate echelons as possible. Issue of suppressive medicaments, salt tablets, soap, insecticides, toilet paper, and similar items may be through class I channels.

b. Strength reports, with the addition of any special requirements, act as the triggering de-

vice to cause the shipping of commodities (fig. 9-4). The personnel services company of the appropriate support brigade or the personnel services division of the DISCOM administration company provides strength data. The brigade SCC submits strengths and special requirements to the FASCOM ICC, which, in turn, submits the field army requirements to the SMCOM ICC. Shipments from the TASCOM bypass GS units, wherever practicable. When feasible, shipments originating at the GS level go directly to the using unit.

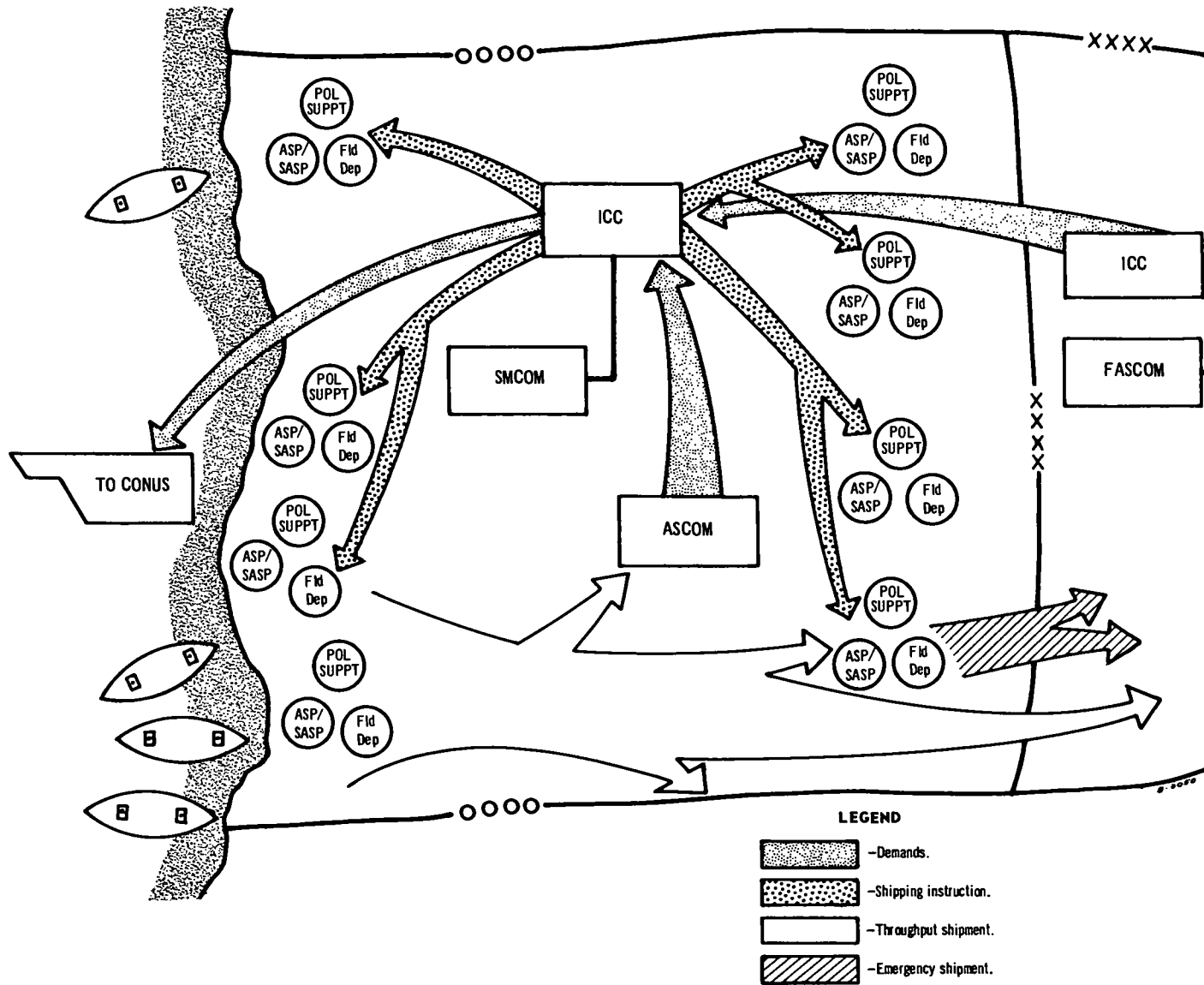
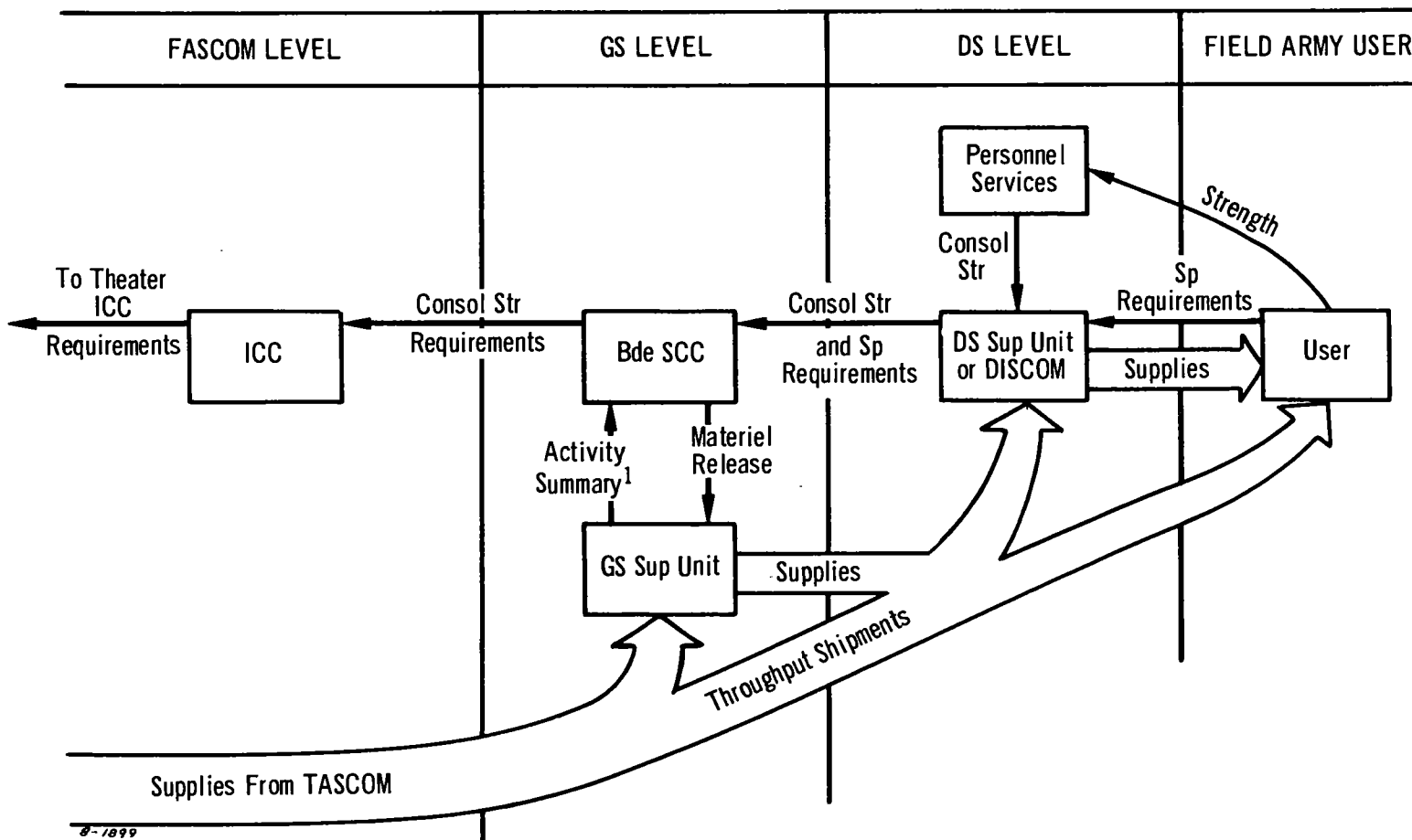


Figure 9-3. Supply flow (schematic).



¹Activity summary consists of receipt, requested inventory status reports, and materiel release denials.

Figure 9-4. Flow of items consumed according to strength (schematic).

9-28. Class II Supplies

a. Class II supplies include a large number and variety of items. The problem of stock control of class II supplies is to insure that unfilled demands do not exist at one point, while unrecorded stocks accumulate at another. Disposition of balanced stocks of fast-moving items is lateral and forward to permit rapid response to frequent demands. Rear depots normally store slow-moving items for shipment forward when required.

b. Requirements for class II supplies (nonregulated), in the form of single line-item requisitions, flow from the user through the various supply control elements as shown in figure

9-5. GS supply units are storage points and react to instructions contained in the SCC's materiel release orders or shipping directives. DS supply units, including division, fill user requirements from available stocks. DS elements submit requirements to designated SCC's using automated communications. The SCC directs shipment from available GS stocks and coordinates movement with the MCC. The SCC reports status of authorized stockage to the FASCOM ICC, which submits requirements to the SMCOM ICC. Shipments from field depots and field army GS supply units bypass intermediate storage locations and proceed as far forward as feasible.

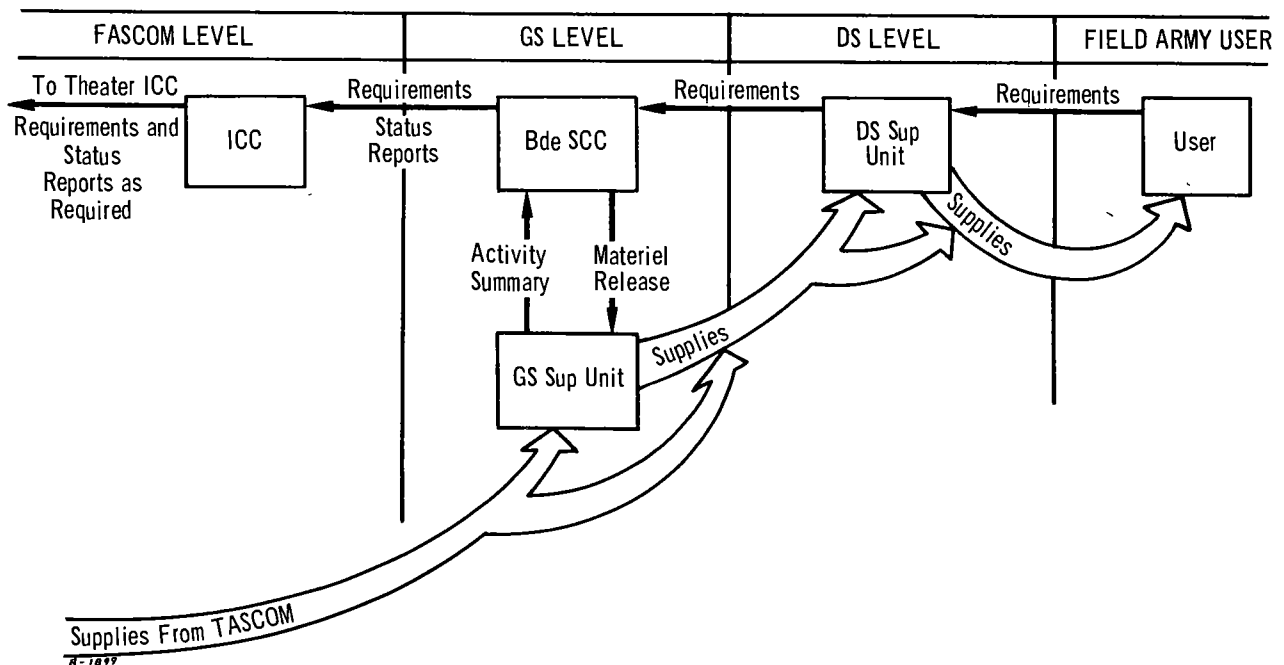


Figure 9-5. Flow of class II supplies (nonregulated) (schematic).

9-29. Class III Supplies

a. Class III supplies usually make up more than one-half the tonnage shipped to the theater. Petroleum fuels are handled in bulk. The depot system distributes class III supplies, to include packaged petroleum products (greases, oils, and lubricants). FM 10-20 contains details on class III distribution.

b. Pipelines provide the most economical, efficient, and effective means of moving large quantities of bulk liquid fuels. The plan for

distribution of liquid fuels makes maximum use of this method of delivery.

c. The theater petroleum supply system begins with the receipt in the theater of bulk and packaged petroleum products. Large ocean tankers deliver bulk petroleum to the theater at marine petroleum terminals. In over-the-beach operations, hoses may be the method of delivery. Shipping at dry-cargo port or beach facilities delivers packaged products. Large lighters and flexible towed containers

may move products from shipping to the beach when use of docks or submarine pipeline is not practicable. Tank farms receive the bulk petroleum supplies, preferably by pipeline. Field depots receive the packaged products for distribution through GS and DS supply organizations to consumers throughout the theater.

d. A pipeline system includes discharging fa-

cilities and dock manifolds at ports, water terminals, and other points of entry; inland tank farms, terminals, and other petroleum storage facilities; pump stations; and pipelines that extend from points of entry as far forward as practicable. Figure 9-6 shows such a system schematically.

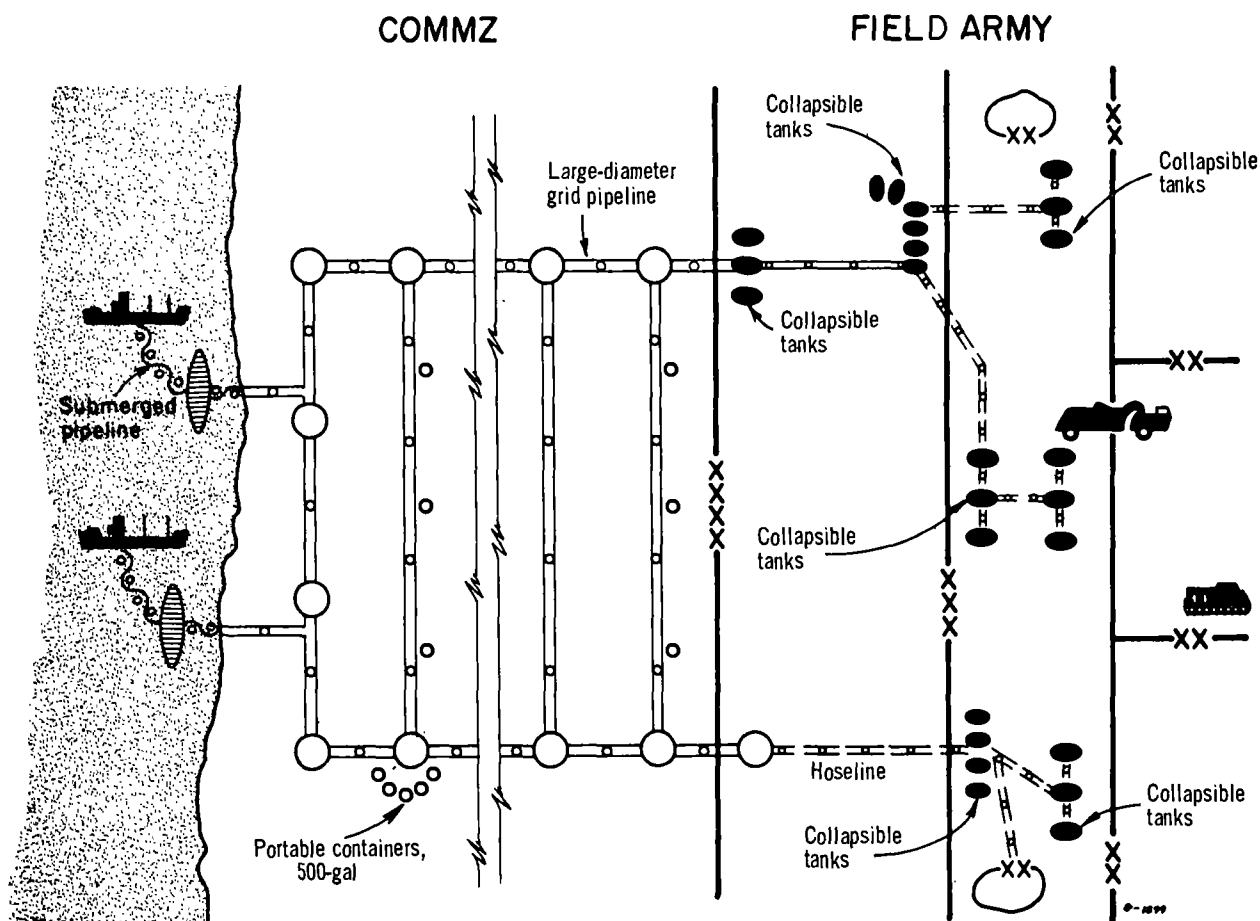


Figure 9-6. Theater POL system (schematic).

e. Specially designed organizations operate the bulk petroleum distribution system in a theater of operations.

(1) In the combat zone, the petroleum supply battalion that serves each corps and the battalion that serves field army service area troops operate the bulk petroleum supply system (fig. 9-7). In divisions, the supply or supply and transport battalion operates the system. DS supply and service battalions serve nondivisional units.

(2) In the COMMZ, a petroleum group with petroleum operating battalions and companies normally operate the system. If two or more groups are needed to operate the system, a petroleum brigade headquarters may coordinate operations. The brigade is assigned to the SMCOM.

(3) Within the framework of current doctrine, a joint petroleum office (JPO) is at theater headquarters, with suboffices as required. The JPO advises on and coordinates petroleum

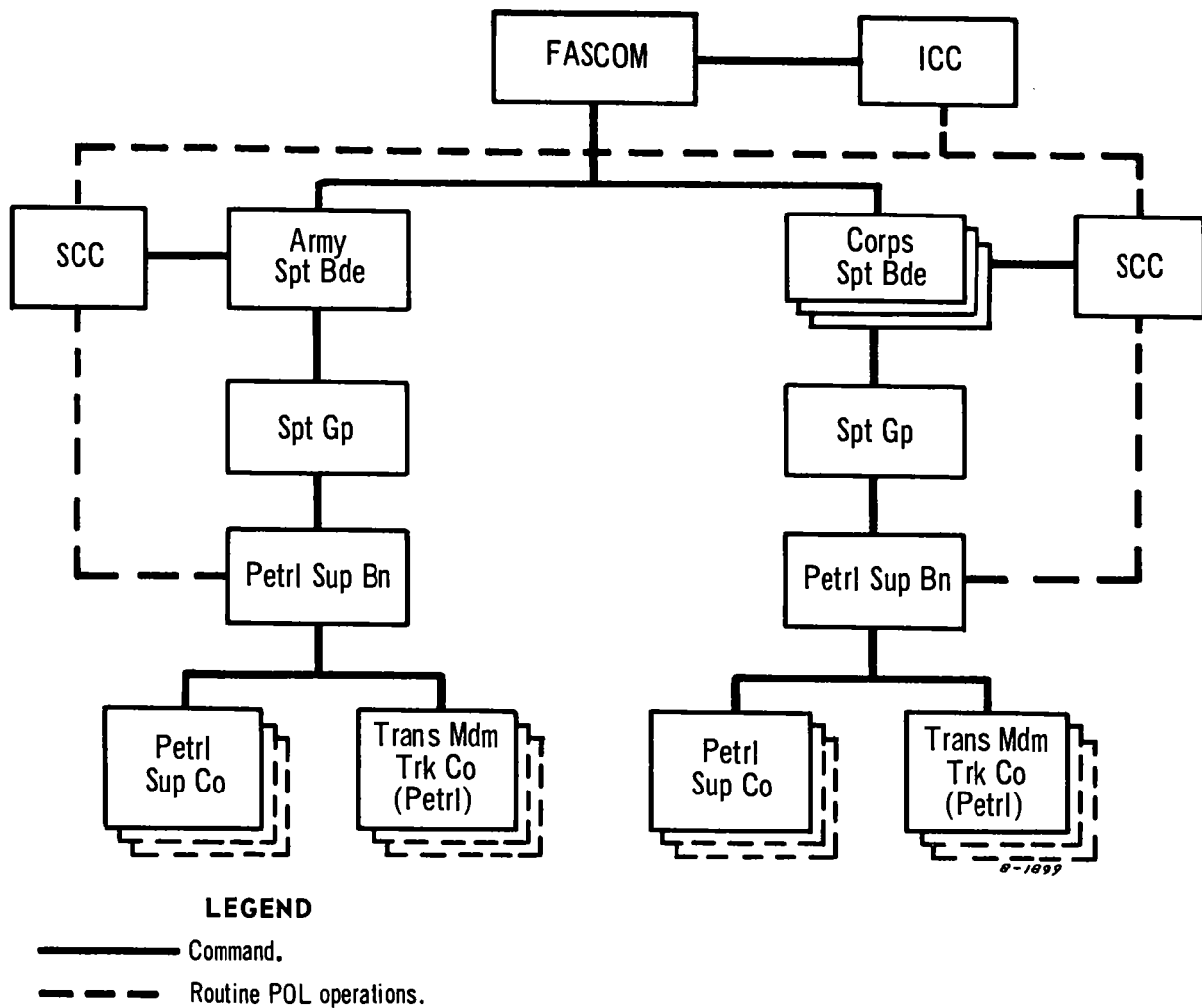


Figure 9-7. Organization for GS supply and distribution of bulk petroleum in the field army.

planning and policy matters, advises on the allocation of petroleum products and facilities, and insures incorporation of the requirements of all the Military Services in theater petroleum requirements. The JPO receives and consolidates theater requirements for petroleum products and submits the requisitions as slates to the CONUS for supply action.

f. Under optimum conditions, bulk petroleum products move through the supply system at a constant rate that is subject only to requests placed on controlling headquarters to adjust or alter deliveries. The SMCOM, by means of its petroleum group, establishes and operates petroleum bulk products terminals as far forward as practicable, to include the field army

area. The FASCOM supervises petroleum support for the field army and coordinates supply operations with the TASCOM SMCOM in the COMMZ.

(1) In the COMMZ, the petroleum operating battalions use their petroleum operating companies to deliver bulk products to DS supply and service battalions for issue to consumer units.

(2) In the field army, the support brigade petroleum supply battalions deliver bulk products to DISCOM's and to DS supply and service battalions for issue to consumer units (fig. 9-8).

(a) Petroleum supply companies of the battalions receive, store, and issue bulk prod-

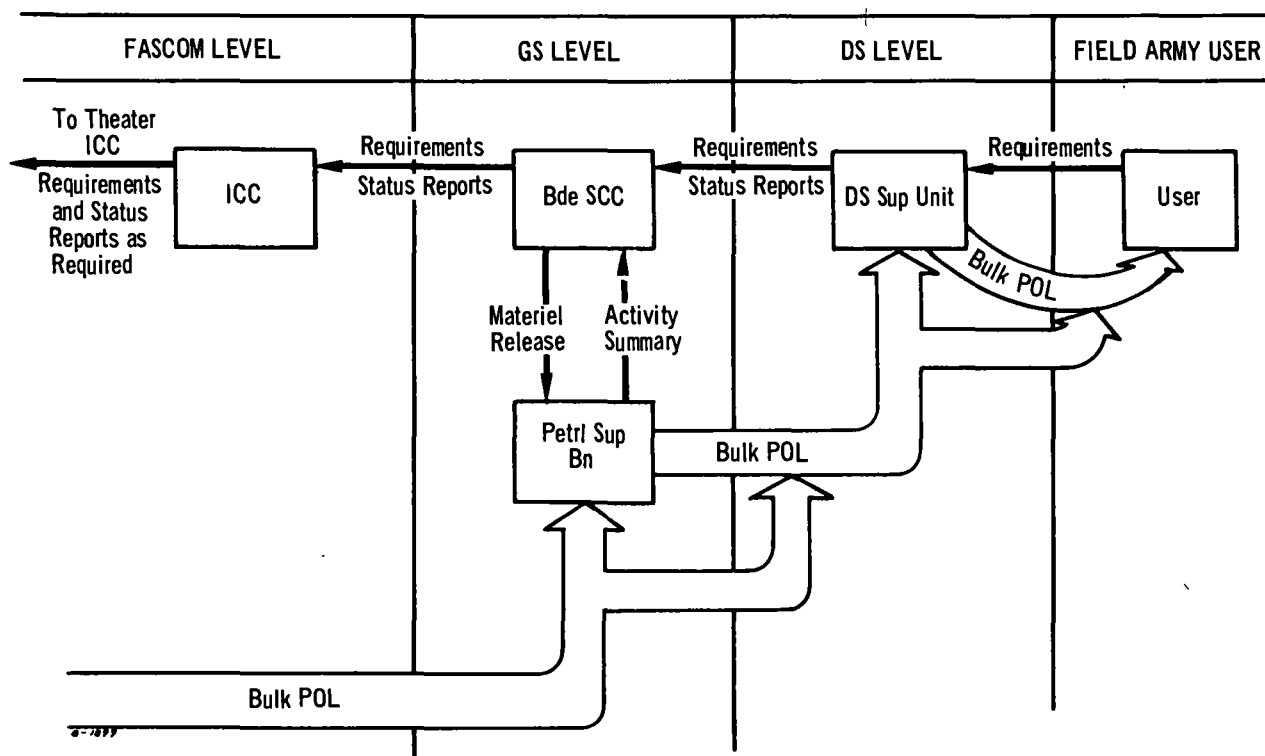


Figure 9-8. Flow of bulk petroleum, FASCOM (schematic).

ucts at class III supply points and deliver bulk products by hoseline to major consumers.

(b) Medium truck companies (petroleum) of the battalions deliver bulk products from the class III supply points as far forward as the situation permits, but normally to DS supply units and to divisions. Deliveries bypass intermediate storage locations whenever possible.

g. The system supplies bulk petroleum by immediately replacing quantities issued and consumed. Status reports (or activity summaries), which substantiate issues of product made during any given period, are the bases for system replenishment. When and where controls are imposed, the objective is not to allocate or delimit quantities of product, but to provide information to the command for decisions affecting diversions or other adjustments needed to satisfy requirements.

(1) Centralization of stock control functions is at the SCC in each support brigade headquarters in the combat zone. The SCC, unless otherwise directed, receives requirements (or forecasts) from the DISCOM and nondivi-

sional DS supply units and activity summaries from GS petroleum suppliers (fig. 9-9). The SCC, depending on its degree of authority or control, may influence supply actions by passing a requirement to the FASCOM ICC or by diverting products already moving from assigned destinations. The SCC exercises such options within the parameters specified by support brigade headquarters. In any event, the SCC transmits or transceives to the FASCOM ICC, as directed, activity summaries that trigger replenishment deliveries.

(2) The FASCOM ICC computes requirements, maintains centralized cognizance over the field army inventory of petroleum, receives and processes requirements from SCC's, and provides the FASCOM staff data and summaries on which to base command decisions. The ICC transmits to the TASCOM activity summaries, which are the bases for necessary replenishment and supplemental requirements.

(3) The SMCOM ICC receives activity summaries from the petroleum group. The center also provides reports required by the SMCOM to monitor the performance of the

system, approves supplemental requisitions from the FASCOM ICC, consolidates projected requirements in the form of planning estimates

from the FASCOM and other U.S. Forces, and forwards the consolidated requirements to the JPO.

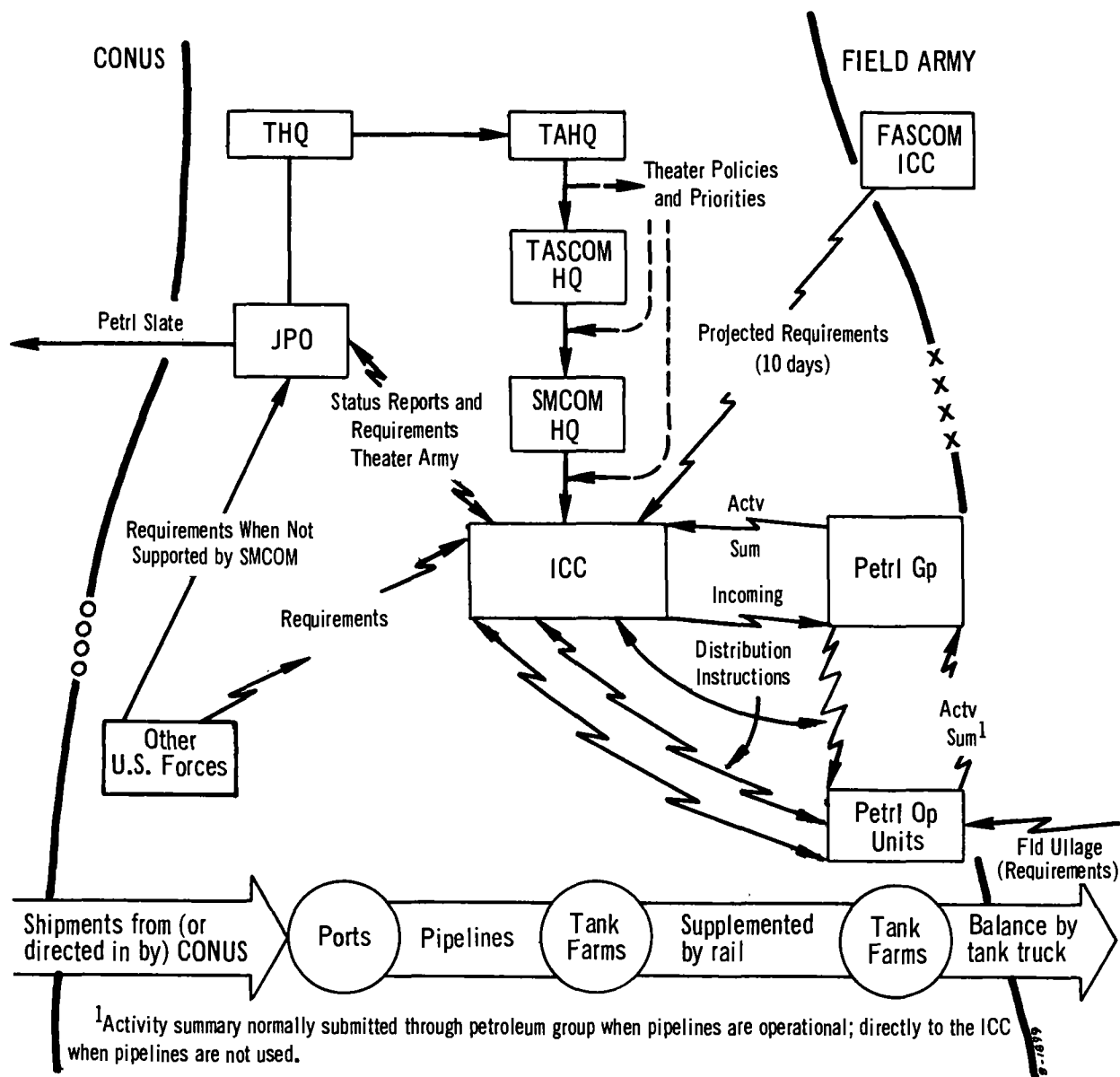


Figure 9-9. Petroleum requirements and distribution (schematic).

9-30. Class IV and Class VII Supplies

When not regulated, commodities in these classifications follow generally the system outlined for class II (para 9-28). If regulated or controlled items, issue requires command approval as shown in figure 9-10. The SCC advises the appropriate commander on availabil-

ity of items. Upon command approval, the appropriate SCC issues shipping instructions to the storing GS unit, which makes shipment directly to the user.

9-31. Class V Supplies

a. General. Supply of conventional and spe-

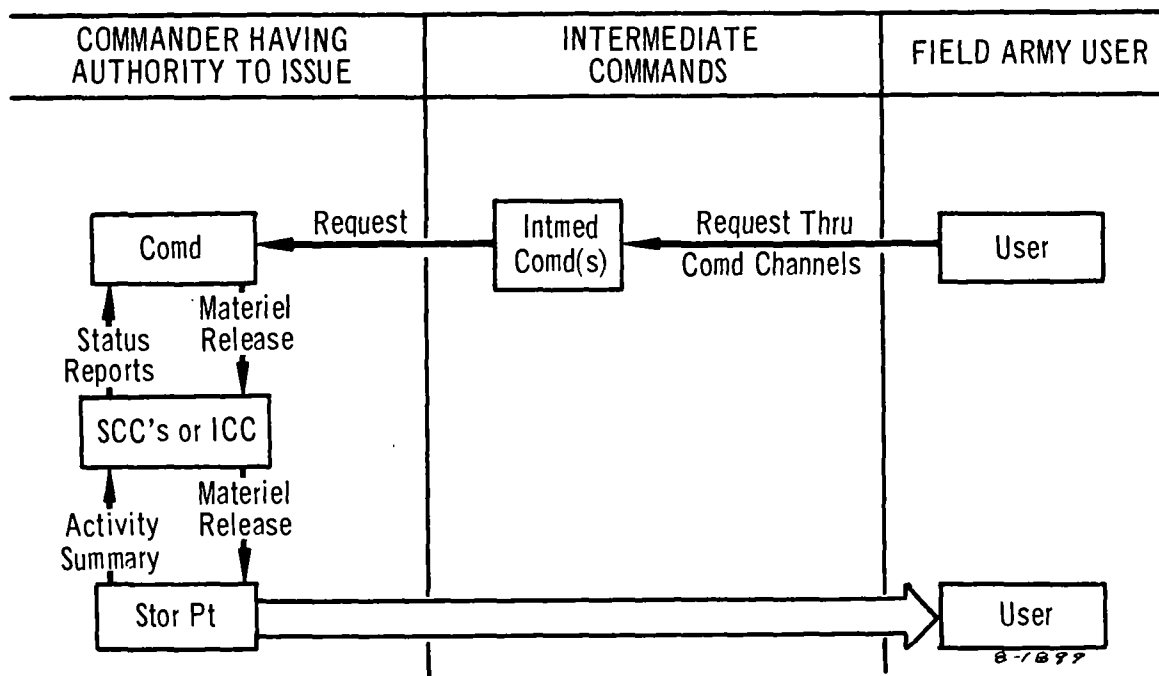


Figure 9-10. Flow of class IV and regulated items (schematic).

cial ammunition comprises class V supply. Ammunition supply in the theater of operations is provided at the direct and general support levels. At both levels, conventional ammunition companies operate ammunition supply points (ASP) for conventional ammunition and special ammunition companies operate special ammunition supply points (SASP) for special ammunition. Staff supervision of ammunition supply in major combat service support headquarters is exercised by ammunition service staff personnel included within the staff of the Assistant Chief of Staff (ACofS), Supply at the headquarters of the TASCOM, SMCOM, FASCOM, and corps support brigade. At these headquarters, when an inventory/stock control center is provided that operates under the supervision of the ACofS, Supply, ammunition service personnel in the missile and munitions branch of the center perform supply management. Also, these centers can provide personnel to form a "Special Ammunition Logistical Element (SALE)" to be located at the headquarters (e.g., tactical operations center) of the senior commander concerned to aid in supply and resupply of special ammunition. Detailed information on am-

munition service in a theater of operations is contained in FM 9-6 and FM 9-6-1 (Test).

b. **COMMZ.** Ammunition supply depots are part of the ammunition depot complexes located normally in the forward and rear areas of the COMMZ with a minimum of one forward and one rear ammunition depot complex per corps slice. Each complex usually contains a conventional ammunition depot and a special ammunition depot. These depots support ammunition supply points in the combat zone as well as using units located in their areas of responsibility within the COMMZ. Forward depots primarily provide combat essential reserve stocks. Forward depots also serve as a means to disperse stocks within the COMMZ and provide a source for the combat zone when shipments cannot be made from rear depots. Normally located just to the rear of the combat zone along main supply routes, forward depots move as necessary to be positioned properly to provide support as the field army moves forward. Also located along main supply routes, but to the rear of the COMMZ near airports and seaports, are rear depots. These are larger and more static installations, that usually require facilities to protect stocks under varied

weather conditions. Containing the bulk of ammunition stocks, rear depots store ammunition primarily for operational use.

c. *Combat Zone.* Ammunition supply is based on a corps slice of the combat zone. Direct support ASP/SASP normally are positioned forward in the corps area near the division rear boundary. General support ASP/SASP usually are positioned in the corps rear area or within the field army service area, as the tactical situation dictates. Primarily containing reserve stockage, general support supply points serve as a means to—disperse stocks within the combat zone due to their rearward location; provide a source in the event the forward direct support supply points are destroyed; furnish replenishment shipments to forward supply points when requirements cannot be met by COMMZ depots; and support using units located in corps rear area and in the field army service area.

d. *Shipment of Ammunition.* Supply point distribution is the normal method of providing ammunition to using units. Conventional ammunition will be assembled in unitized (palletized and/or containerized) loads at the manufacturer for distribution down to and including the direct support level in the combat zone. These loads are assembled in a manner consistent with the requirements for explosive compatibility that are prescribed in applicable Army directives. Figures 9-11 and 9-12 illustrate the flow of conventional and special ammunition as well as depict throughput variations. Maximum throughput is a basic characteristic of ammunition supply. The preponderance of throughput is from rear COMMZ depots to direct support supply points in the combat zone. Air transport will be emphasized, especially for throughput of special ammunition. In figure 9-11 an example flow for conventional ammunition shows an equal distribution to each corps slice. However, distribution usually varies according to the missions assigned each corps and any expenditure restrictions imposed. Since distribution of special ammunition depends on command decision, the desires of the tactical commander to whom these items are allocated govern throughput of special ammunition. The field army com-

mander normally allocates ammunition to each corps based on the main and supporting tactical efforts. In any situation, throughput of ammunition requires close coordination between the inventory/stock control centers and the movement control centers at the corps support brigade, FASCOM and SMCOM headquarters to insure ammunition is routed or rerouted to meet tactical changes. In addition, within the combat zone close coordination between the FASCOM, corps support brigade, and ammunition group headquarters is needed to make necessary shifts of ammunition supply units between corps slices to meet varying requirements.

e. *Conventional Ammunition Control.* Procedures for control of conventional ammunition involve the basic load, required supply rate (RSR), and available supply rate (ASR).

(1) *Basic load.* The basic load is that quantity of ammunition which is authorized and required to be on hand within a unit at all times. Authorized by major commanders, the basic load enables the unit to accomplish its mission until resupply can be effected. Considerations in establishing basic loads include the unit mission, unit transport capability, and anticipated resupply time. The basic load is continuously reconstituted as it is used. The basic load includes ammunition carried by the individual soldier, ammunition stowed in self-propelled weapons, ammunition carried in prime movers, and ammunition stowed at gun positions and in unit dumps. The basic load is expressed in terms of rounds for ammunition items fired by weapons and in other units of measure for bulk allotment and other ammunition items. The percentage of each kind of ammunition (e.g., high explosive, white phosphorous, armor-piercing capped) is left to the discretion of the unit commander when availability permits.

(2) *RSR.* The RSR is the amount of ammunition estimated to be required to sustain operations without restriction for a specified period. It is expressed in terms of rounds per weapon per day for ammunition items fired by weapons and in other units of measure per day for bulk allotment and other items. The rate is not fixed, but depends on the type of operation.

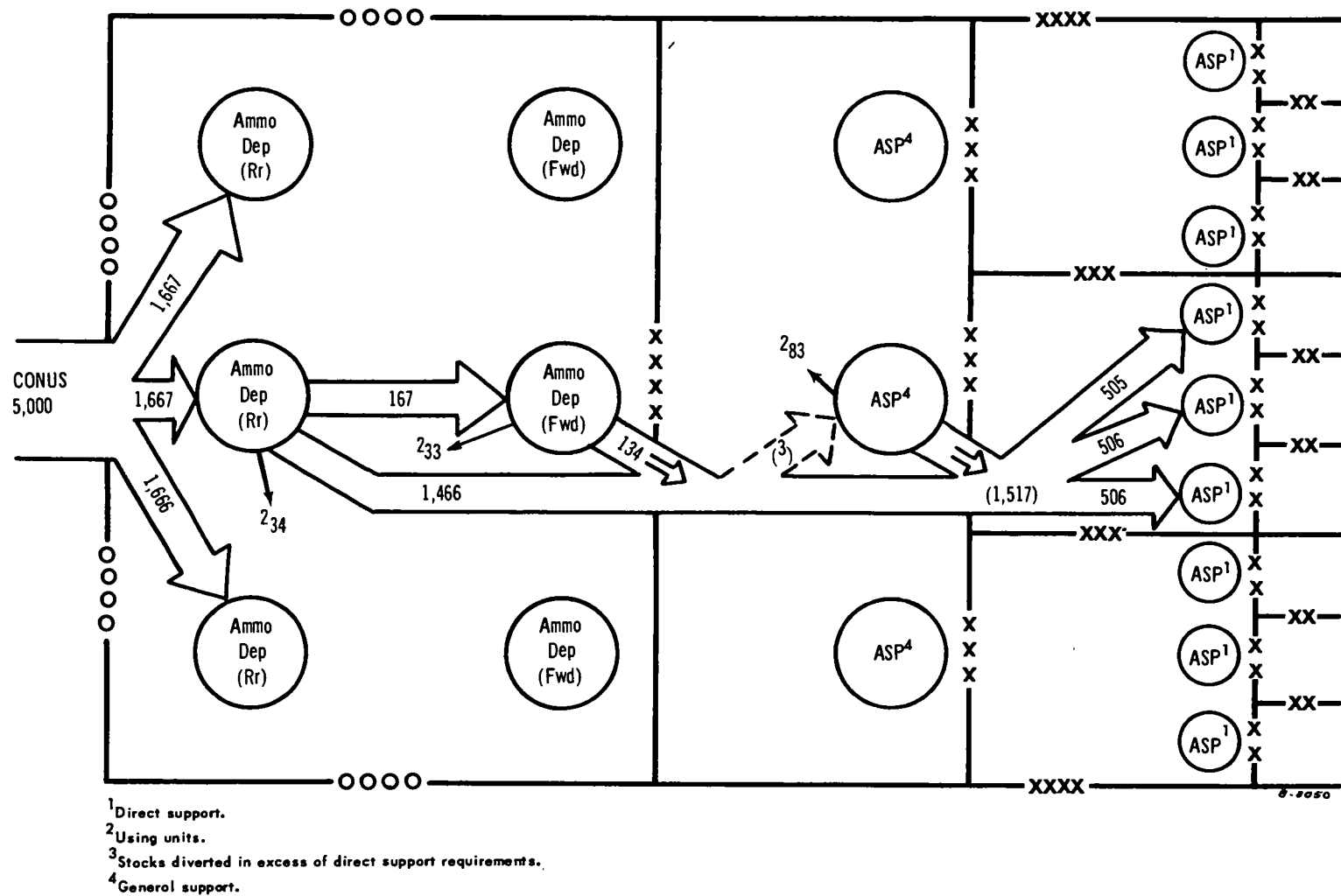


Figure 9-11. Flow of conventional ammunition (corps slice of theater in short tons per day) (schematic).

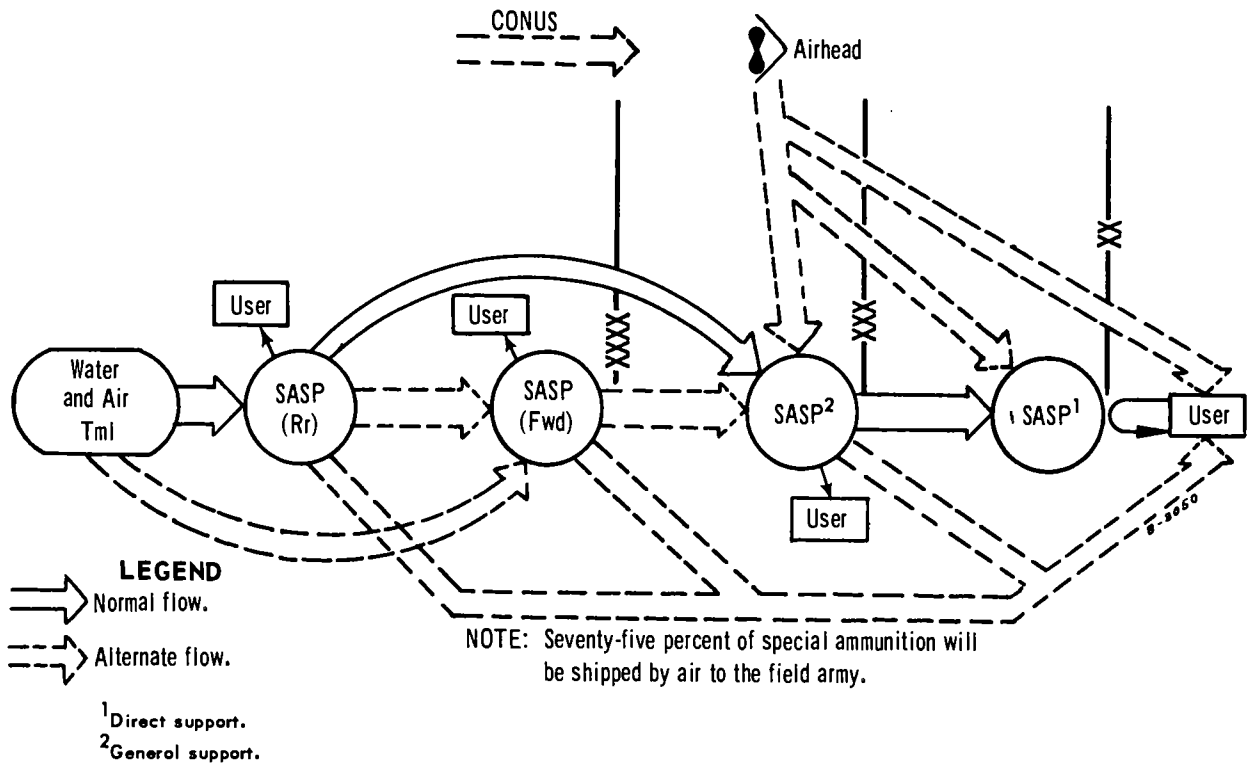
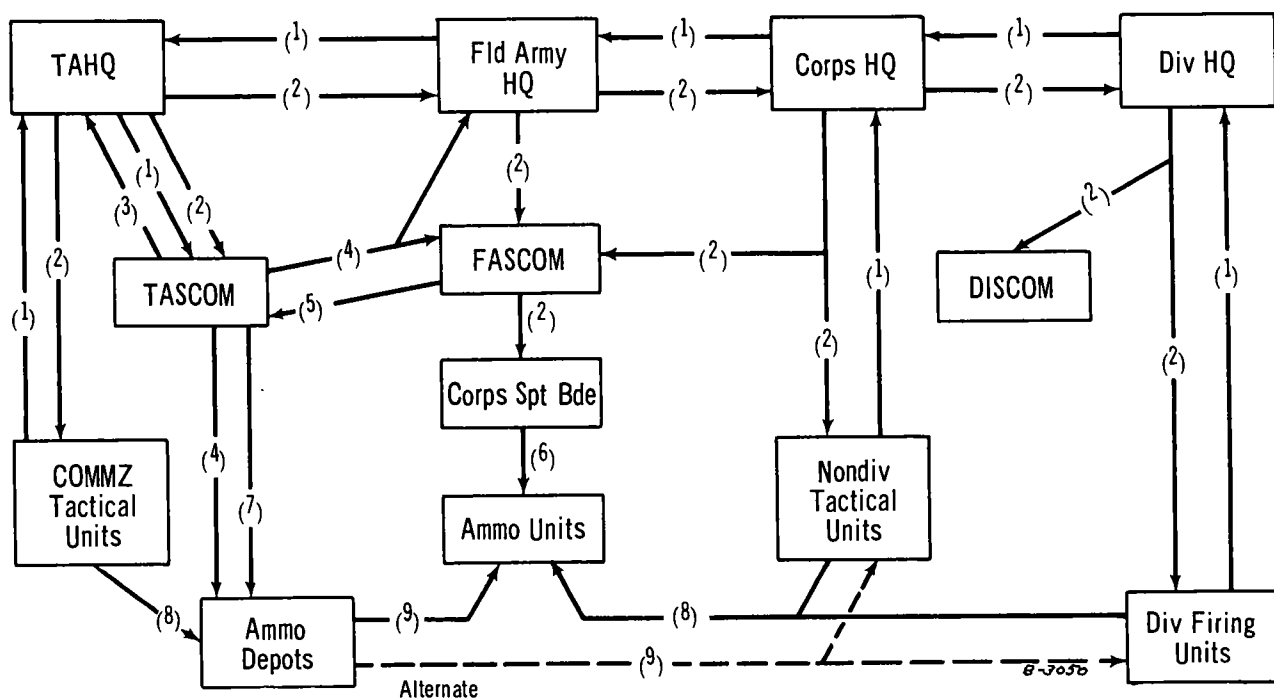


Figure 9-12. Flow of special ammunition, guided missiles, and special ammunition repair parts (schematic).



- 1 Required supply rate (consolidated at each command headquarters).
- 2 Available supply rate (recalculated by each command headquarters for subordinate units).
- 3 Ammunition availability (quantities on hand and immediately due in).
- 4 Ammunition credits (constitute authority to request shipment of ammunition).
- 5 Request to ship ammunition (prepared by support elements).
- 6 Stock levels for each ammunition unit (based on available supply rates).
- 7 Shipping order (issued by the ICC).
- 8 Ammunition pickup (supply point distribution).
- 9 Ammunition shipment.

Figure 9-13. Flow of conventional ammunition and routing of RSR's and ASR's (schematic).

It may vary for each combat unit in a corps and for units in a division. Figure 9-13 illustrates the routing of the RSR's. Computation of RSR's is applicable to tactical weapons only. Each tactical commander develops RSR's and submits them to his next higher headquarters.

(3) ASR. The ASR is the quantity of ammunition, stated in the same terms as the RSR, that can be sustained within available supplies. It is applicable only to the weapons of divisions, separate brigades, armored cavalry regiments, combat engineers, and artillery. The theater army commander announces to army group or field army commanders the ASR's for

each item of ammunition. Each tactical commander announces an ASR to his next subordinate tactical commander. Figure 9-13 illustrates the routing of ASR's.

f. Special Ammunition Controls. The necessarily rigid controls over special ammunition (fig. 9-14) are discussed in (1) through (3) below.

(1) *Special ammunition load.* The special ammunition load (SAL) is a specific quantity of special ammunition to be carried by a delivery unit. The SAL is not a fixed quantity, as is a basic load, but is established by command ac-

tion, depending on the mission, the tactical and logistic situation, and the capability of the unit to transport and use the load. Replenishment of the SAL is not automatic, but requires a command decision based on the situation, mission, and capability of the unit. The SAL may vary from day to day and among similar delivery units.

(2) *Special ammunition allocation.* A special ammunition allocation is the designation of special ammunition for planning purposes,

which a commander may expend when the use of such ammunition is authorized.

(3) *Special ammunition stockage.* This is a specific quantity of special ammunition to be stocked in an ammunition service support unit or installation. Establishment of this stockage is by command decision, based on the tactical and logistic situation and the capability of the units concerned to receive, store, maintain, and issue the ammunition. Special ammunition stockage is not a fixed quantity or rate, and re-

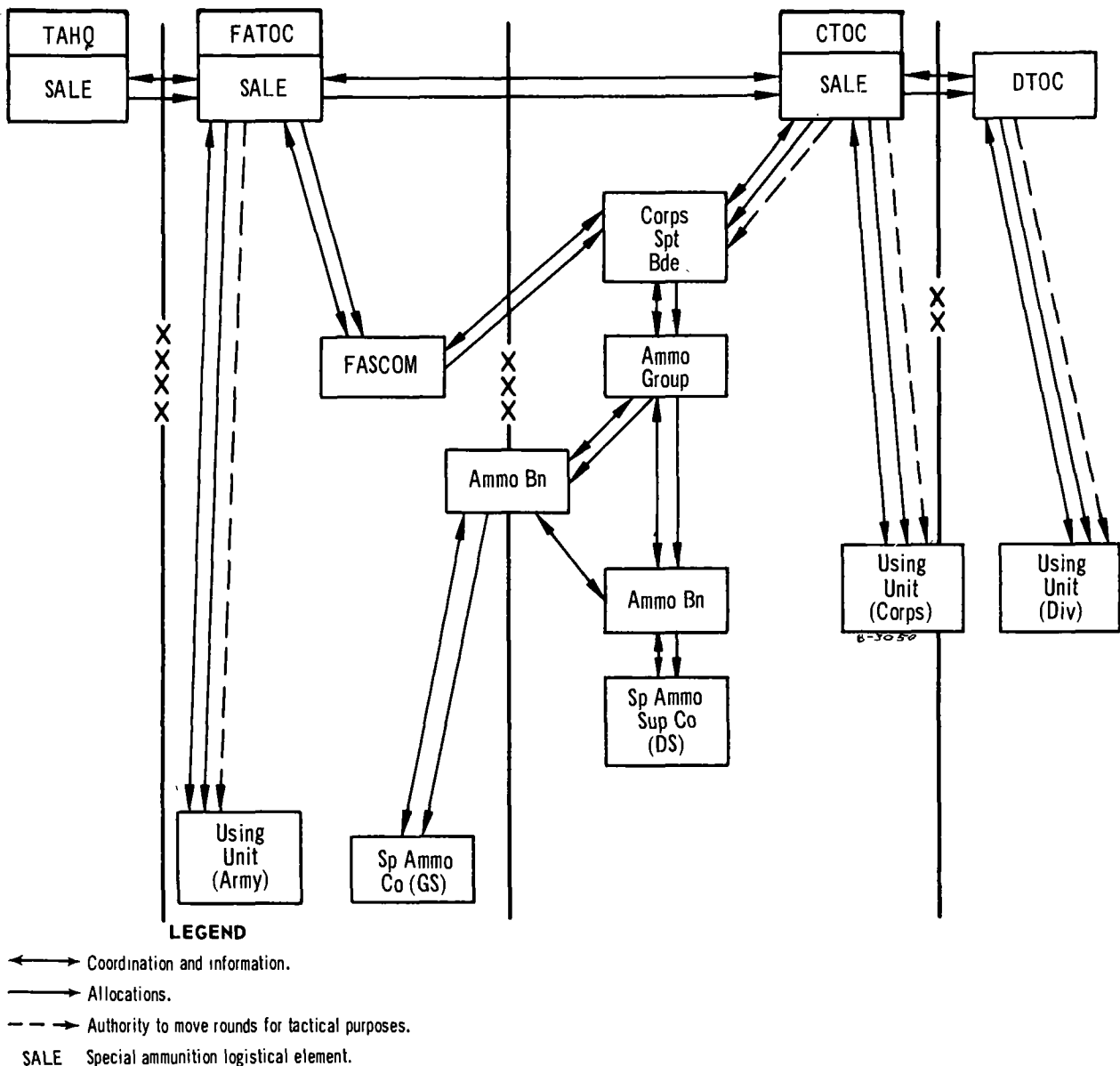


Figure 9-14. Control of special ammunition in the field army (schematic).

plenishment of this stockage is a command decision.

g. Tactical Control of Ammunition.

(1) *Conventional ammunition.* The theater army commander allocates ammunition to the field army. The field army commander sub-allocates to subordinate corps and corps to divisions. Each tactical commander allocates ammunition based on the main and supporting tactical efforts. The FASCOM ICC receives control information from FASCOM headquarters based on the allocation information received from the field army. The SCC receives similar information from the corps through corps support brigade headquarters.

(2) *Special ammunition.* The allocation of special ammunition is from commander to commander (i.e., commanding general, theater army, to commanding general, field army, to commanding general, corps, to commanding general, division): As a result, the commander of a logistic headquarters can provide only the means to carry out the desires of the tactical commander. A special ammunition logistic element (SALE) is formed at theater army or air defense brigade headquarters and at field army and corps tactical operations centers (TOC) to

be immediately responsive to the appropriate tactical commanders in expediting the supply of special ammunition.

9-32. Class VI and Class VIII Supply

a. See paragraph 9-41 for class VI supplies.

b. See paragraph 14-23 for Class VIII supplies.

9-33. Class IX Supply

Requirements and supply distribution for repair parts (fig. 9-15) follow a system similar to that for class II items.

a. DS and GS maintenance elements initiate requisitions for repair parts for submission to the support brigade SCC. The support brigade SCC releases stocks from one of the GS repair parts companies and coordinates the transportation requirement for movement. If none of the repair parts companies in the brigade have the required items or quantities on hand, the brigade SCC sends the requisitions to the FASCOM ICC. The FASCOM ICC, through cross-leveling operations, laterally transfers stocks from repair parts units having excess available stocks to repair parts companies requiring stock replenishment. The FASCOM ICC also

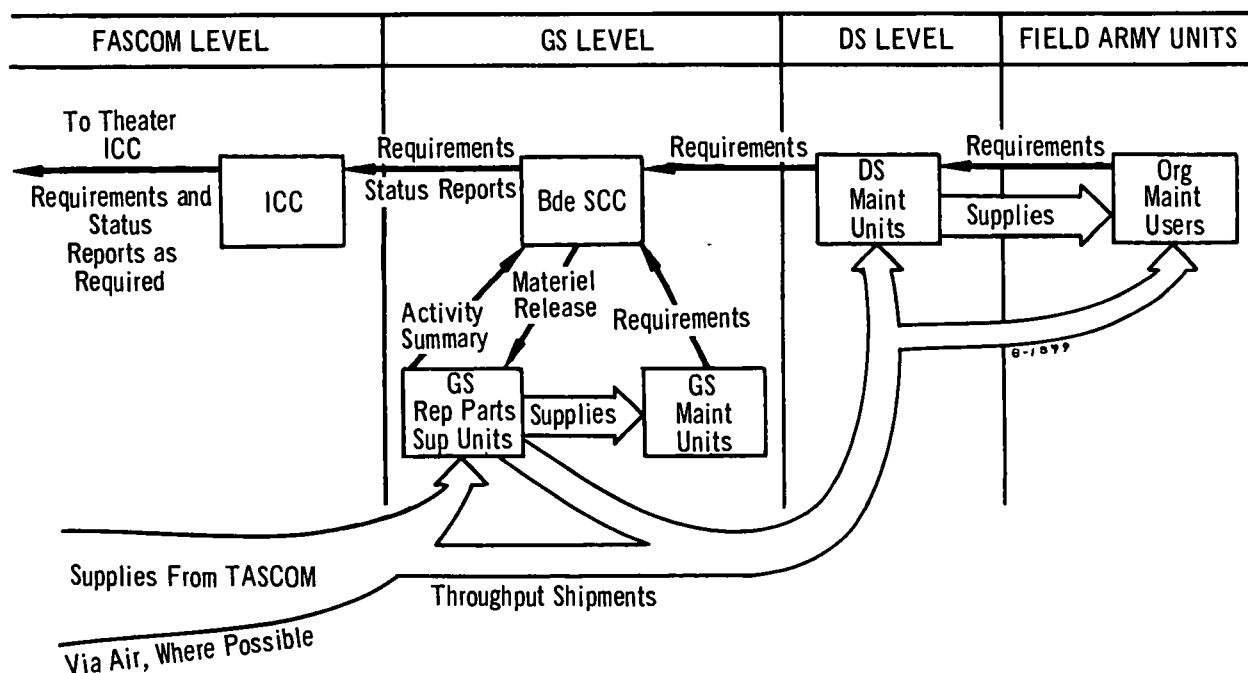


Figure 9-15. Flow of repair parts requirements and distribution (schematic).

can direct redistribution of repair parts stocks within the support brigades.

b. At the DS level, repair parts come

through maintenance channels. At the GS level, all repair parts, including aircraft and missile parts, come through supply channels.

Section VII. SUPPLY, MISCELLANEOUS

9-34. Adjutant General Supplies

Adjutant general (AG) supplies consist of blank forms and publications. The AG supervises matters pertaining to printing (except map reproduction and printing for psychological operations (PSYOP)), including policy and procedure for control, production, and distribution of military publications. The AG pinpoint distribution system provides the issue of official publications to all units and organizations worldwide (AR 310-1). In addition, each item of equipment that is packed and shipped normally includes the initial issue of technical publications necessary for installation, operation, and maintenance of the equipment.

9-35. Air Force and Navy Supplies

The Air Force and Navy may be responsible for procurement and distribution of certain common supply items for all Services in a theater of operations. Theater air and naval installations store such items. These installations make authorized issues to Army forces through the Army distribution system.

9-36. Animals

The procurement, requisition, and distribution of animals are responsibilities of the procurement activities of the various headquarters (except for test animals procured through medical channels for the Army Medical Service). Requirements for animals depend on the area of operations, climate, terrain, and weather. Animal supply activities include requirements for dog teams in cold regions, guard dogs for installations in some areas, and mounts and pack animals in remote and isolated areas. Accordingly, animal supply activities are on an as-required basis.

9-37. Captured Materiel

Captured materiel is a source of logistic support. Procedures for proper handling and exploitation of captured materiel are in FM 30-16, and AR 755-26.

9-38. CA Supply

a. For details on CA civilian supply, see FM 41-10.

b. Military sources may provide some supplies to the civil populace if the resources of the territory are inadequate. Provision of military supplies will not be to an extent that jeopardizes military operations. In addition, civil agencies of the U.S. Government and private charitable organizations may provide supplies for civilians, which may or may not be distributed through military channels. Supply in support of CA activities includes supplies for civilian relief and supplies for economic aid. Civilian relief supplies comprise such commodities as food, clothing, shelter, medical supplies, and other items furnished for control of disease and relief of civilian distress. Economic aid supplies consist of such items as coal, petroleum, capital goods, raw materials, railroad equipment, and fertilizers. Supplies and services may be necessary to establish or restore information services in the area (e.g., newsprint, printing facilities, radio broadcast and reception, motion pictures). CA organizations estimate requirements and supervise distribution of supplies. The civilian economy may be a valuable source of essential supplies, and this factor is a consideration in according priorities to civilian supply requirements.

c. The TASCOM performs procurement and stockage of CA supplies in accordance with the theater policies. CA supplies are a consideration in making allocations of shipping and storage space.

9-39. PSYOP Supplies

Face-to-face persuasion, radio, television, motion pictures, printed matter, and loudspeakers are media for conducting PSYOP. Equipment and expendables may come from either U.S. or indigenous sources; in either case, the supply problems are unique (FM 33-1).

a. *U.S. Sources.* Much of the equipment found in TOE 33-500. (Psychological Opera-

tions Organization) is oversize and of low density in the Army supply system. Nonstandard parts are used to repair many of these items.

b. Indigenous Sources. Experience indicates that U.S. Army PSYOP organizations will continue to make extensive use of indigenous supplies and installations. Planning should include the location, types, and condition of local facilities, such as radio stations and printing plants, that may be rehabilitated and used by U.S. Forces. Planners consider the availability of usable local resources as opposed to transporting U.S. equipment to the area of operations.

9-40. Religious Supplies and Equipment

Two categories of supplies and equipment are available to chaplains. Standard supplies and equipment, such as altar brass, portable altar sets, communion sets, wine, and candles, come through normal supply channels. Nonstandard supplies—commercial items that are not type classified—come from appropriated and nonappropriated funds and donations.

9-41. Special Services and Exchange Supplies

a. Special services supplies consist of items used in the welfare, recreation, and morale program for Service personnel (e.g., athletic equipment and small games kits; books and library supplies; musical instruments and replacement parts; theatrical equipment and accessories; crafts equipment and tools; model kits and materials; photographic equipment and supplies; radio and television equipment; and motion-picture equipment). Each unit normally takes overseas an initial supply of special services equipment, accessories, and repair parts. Resupply is by requisitioning through supply channels.

b. Army and Air Force Exchange Service supplies consist of items for sale to troops and other authorized individuals. Supplies may be available through local procurement, through transfer from theater stocks, or through requisition on the Army and Air Force Exchange Service in the CONUS. Available shipping space dictates allocation and shipment of supplies to the theater. The Army and Air Force

Exchange Service determines requirements; procures, stores, and distributes supplies; and operates the resale facilities.

9-42. Information Supplies

Information supplies consist of items necessary to support information programs and to provide education services. These supplies include printed materials, motion pictures, radio and television broadcast stations, receiving equipment, and transcriptions. Most items come through normal supply channels. In some cases, procurement, storage, maintenance, and distribution of these supplies are through special channels and facilities.

9-43. Excess and Surplus Supplies

a. Excess supplies are those that exceed the quantity authorized for a particular organization, supply installation, activity, or area. Surplus supplies are those over and above the requirements of all Government agencies.

b. Excess supplies may result from changes in plans, unanticipated decrease in demand or consumption, or lack of supply economy. Units segregate, inventory, and report their excess supplies to the next higher echelon in the supply chain. Determination and elimination of excess supplies are continuing functions of each unit and supply establishment. Evacuation and redistribution of excess supplies are through normal supply channels.

c. Units report and dispose of surplus property in theaters as prescribed in appropriate regulations.

9-44. Salvage

a. Salvage within the theater consists of materiel that can be converted to a substitute use or that has value as scrap. The prompt collection and use of equipment abandoned on the battlefield and in bivouac areas is an important conservation measure and is the responsibility of all commands and personnel. Salvage operations make available substantial quantities of arms, equipment, and supplies for reissue; conserve labor and materials; and afford relief to transportation means.

b. Salvage service in the theater of operations is by units engaged wholly or in part in

collecting, evacuating, classifying, reclaiming, and disposing of waste materials, abandoned property, and unserviceable supplies.

c. Commanders designate collecting points for appropriate types of materiel in favorable locations along routes to the rear. Empty vehicles moving to the rear transport recovered materiel to these collecting points. Maintenance and transportation units assist in the collection and evacuation of heavy salvage materiel. Medical establishments collect the arms and equipment of the sick and wounded and promptly return them to supply channels. Also see AR 755-26.

9-45. Map Supply

a. Theater headquarters establishes theater map requirements by scale and coverage on the basis of operation plans and resources. The engineer command normally receives these requirements through TASCOM headquarters for action and assigns the engineer base topographic battalion responsibility for production, storage, and distribution. In addition, the engineer base topographic battalion provides DS map supply to Army elements and designated other Services and agencies in the COMMZ.

b. To decrease response time in filling requisitions and to improve use of resources, the engineer base topographic battalion maintains stock control for theater map supplies. The ASCOM ADPC, which supports the Engineer Command, provides automatic data processing service to the battalion for stock control.

c. Distribution of maps within the COMMZ is through map supply points established by the engineer base topographic battalion in the area support group areas of the ASCOM. Bulk distribution of maps to the field army is by throughput shipment to the field army topographic battalion.

d. In the combat zone, topographic units in the corps and field army engineer combat brigades supply maps to nondivisional users, whereas the supply and transport battalion of the division support command furnishes maps to divisional users.

9-46. Water Supply

Potable water production is an engineer service. The engineer determines potable water

requirements; finds, records, and develops water sources; treats water and dispenses it; coordinates inspection and testing procedures with the surgeon; and procures and maintains water supply equipment. The transportation service provides rail and overwater bulk transportation of water. The transportation service also establishes and operates the boiler-feed water supply points required for transportation service rail and marine operations. The surgeon inspects and approves water sources and tests and approves treated water. Water equipment capacities and data on computation of requirements for water and water equipment are in FM 101-10-1.

a. Area support groups of the ASCOM provide installation water supply in the COMMZ. Construction battalions of the engineer command establish water points for use in remote areas and to augment or replace temporarily ASCOM water supply sources.

b. In the combat zone, the division engineer battalion and the corps and field army engineer combat brigades provide water purification support.

c. When water must be delivered as a supply item, it becomes a mission of the DISCOM, the FASCOM, or other appropriate support command organization.

9-47. Cryptologistics

a. The TASCOM, FASCOM, and COSCOM provide cryptologic support within the theater. FM 29-11 (Test) provides further information.

b. See AR 380-41 for details on control of cryptomaterial.

c. For details on the maintenance of COMSEC equipment, see AR 750-18.

9-48. Supply for Stability Operations

Supplies for support of stability operations include materiel for U.S. Forces and host country forces and for military civic action and other CA activities in support of host country internal defense and internal development programs. Supplies and equipment may come from U.S., allied, or host country sources. U.S. sources include the Military Assistance Program and the U.S. Army.

a. Supply planners will not have valid experience data for the wide variety of environments in which stability operations may be conducted. There is a need for development of consumption factors, basic loads, stockage levels, and bases of issue. There is also a need for development of similar factors for allied and host country forces that may be supported wholly or partly from U.S. military stocks. Planners give early consideration to needs for special items. When practicable, local procurement will reduce transportation requirements.

b. It will be necessary to establish and maintain stockage levels of supply at echelons

below those where such stockage is normally maintained. Static security posts and combat bases are examples of installations where stockage will be necessary on a continuing basis.

c. U.S. Forces must support CA programs by providing essential supplies to the civilian population. The population may include victims of insurgent attack and groups that have been relocated or concentrated for security reasons. Supply normally will be limited to food, but may include such necessities as clothing, construction materials, and fuel.



CHAPTER 10

LOGISTICS—MAINTENANCE

Section I. GENERAL

10-1. Introduction

a. Maintenance is action taken to keep materiel in a serviceable condition or to restore it to serviceability. It includes inspection, testing, servicing, classification as to serviceability, repair, overhaul, rebuild, and reclamation. Maintenance also includes all supply and repair actions taken to keep a military force in condition to carry out its mission and the routine, recurring work required to keep a facility (plant, building, structure, ground facility, utility system, or other real property) in such condition that it can operate continuously at its original or designed capacity and efficiency for its intended purpose. The maintenance function of combat service support includes plans and operations involved in maintaining materiel. Inherent also is dependence on the capabilities and responsiveness of maintenance units in the field army to discern and report deficiencies in materiel and to recommend corrective action therefor, through maintenance channels, to the U.S. Army Materiel Command wholesale logistic system. Included in the scope of maintenance is work that is done to determine requirements for evacuation of unserviceable equipment and to provide repair parts support. FM 29-20, FM 29-22, and FM 38-5 provide details on maintenance management and operations. See paragraph 9-47 for maintenance of cryptomaterial.

b. Paragraph 1-5 discusses the effect of nuclear, biological, and chemical operations on maintenance facilities and activities.

10-2. Objectives of Maintenance

The objectives of maintenance are to—

a. Assist Army units in carrying out their assigned missions.

b. Predict, prevent, detect, and correct incipient equipment failures by timely preventive maintenance services and inspections.

c. Keep equipment combat ready.

d. Reduce requirements for replacement equipment.

10-3. Interrelationship of Maintenance and Supply

a. Planning for supply and maintenance must be concurrent, closely integrated, and realistic with respect to current consumption rates. An inadequate maintenance organization imposes an increased requirement on the supply system. Conversely, inability of the supply system to replace unserviceable equipment requires greater maintenance effort to return a larger portion of these items to serviceable condition. The extensive damage and destruction of equipment that may result from enemy nuclear attack dictate special emphasis on the interrelationship of maintenance and supply. Proper maintenance of equipment increases its period of economical usefulness, reduces supply requirements for replacement equipment, and conserves resources for other purposes. Combat service support units with supply missions depend heavily on maintenance to repair unserviceable materiel for return to user or return to stock and, to a lesser extent, to fabricate parts.

b. Direct support (DS) maintenance units provide repair parts, which include components and assemblies, and other maintenance supplies to supported units for use in performing organizational maintenance. In addition, delivery of certain end items is through maintenance channels to permit inspection to insure that these items are combat serviceable when

issued. Procurement and storage of repair parts and end items, and their distribution to maintenance activities, are functions of supply agencies. Effective maintenance support thus depends on responsive supply support.

c. Operational readiness floats of end items or major components of mission essential and maintenance significant equipment provide a means for exchange of unserviceable equipment to meet operational requirements. Such floats maintain capabilities of supported units by providing replacement for unserviceable economically repairable end items and major components not repairable within specified time limits and needed to meet operational requirements. When the supply delivery date for replacement of an item lost, destroyed, or determined uneconomically repairable does not meet the operational requirement date, commanders may obtain a float item on a loan basis. When a float item is used under these conditions, the user is responsible for requisitioning a replacement item and returning the float item to the supporting unit. Floats can be established at the DS and GS maintenance levels. An operational readiness float will be provided in support of priority units before equipment is issued to lower priority units.

The theater army support command (TASCOM) and field army support command (FASCOM) commanders establish policies for the positioning of operational readiness floats within their respective commands, based on recommendations of their staffs and on policy provided by higher authority. Maintenance management centers (MMC) coordinate repair priorities with stock control centers (SCC) or inventory control centers (ICC). Turn in of repaired end items or components to supply units or depots is as directed by SCC's or ICC's. Disposition of residue from uneconomically repairable items cannibalized for serviceable repair parts is through salvage channels.

d. Depending on command policy, using units may receive small items of equipment on a direct exchange basis to replace items beyond their repair capabilities. Examples of such direct exchange items are portable radios, individual weapons, generators up to 5 kilowatts, battery chargers, and small air compressors.

Also included are components or subassemblies, such as vehicle generators, carburetors, and master brake cylinders.

e. Issue to frontline units of equipment that has the highest remaining service life reduces requirements for maintenance in forward areas. If the situation permits, a method of reducing requirements for repair parts in forward areas is to locate older items of equipment in areas where higher categories of maintenance are more readily available.

f. Maintenance inspections determine the degree of serviceability and extent of repairs necessary. When DS maintenance activities cannot repair an item within established time limits, or cannot replace an unserviceable item by direct exchange or from the operational readiness float, the using unit turns in the item and receives a replacement through supply channels (FM 29-10 and FM 29-22).

10-4. Maintenance Engineering

Maintenance engineering commences with the development of new materiel and continues until the equipment is in property disposal channels. The objectives of maintenance engineering are to insure adequate maintenance support and maximum maintainability; i.e., adequate repair parts, tools, test and handling equipment, maintenance manuals, and maintenance instructions for each item of equipment. Details on maintenance engineering are in FM 38-5.

10-5. Maintenance Management

a. Maintenance management is the judicious use of resources to accomplish maintenance objectives.

b. Maintenance management includes determination of requirements for time, trained personnel, tools, test equipment facilities, funds, repair parts, and other maintenance supplies.

c. Periodic evaluation of maintenance concepts, policies, doctrine, plans, and procedures insures the most effective maintenance for tactical equipment. This evaluation also includes technical supervision and management of major maintenance programs and activities.

d. Maintenance management insures that adequate time is scheduled for maintenance oper-

ations and training, particularly preventive maintenance (FM 29-10-1 (Test)).

10-6. Maintenance Terms

AR 320-5 and FM 38-5 define and explain commonly used maintenance terms.

Section II. MAINTENANCE CATEGORIES

10-7. Categories

There are four categories of maintenance operations, which are discussed in *a* through *d* below. The purpose of this categorization is to relate maintenance to other military operations, to provide organization to the system of maintenance in the field, to facilitate assignment of maintenance responsibilities to specific levels of command, and to permit orderly and efficient distribution of maintenance assets. The mission of a particular unit or organization, the complexity and bulkiness of the items of equipment, the operational location of the unit, and requirements for constant readiness dictate the category of repairs authorized the unit or organization. Maintenance allocation charts for equipment assign functions and repair operations to the lowest appropriate category (AR 750-1).

a. Organizational Maintenance. Organizational maintenance is that normally authorized for, performed by, and the responsibility of a using organization on authorized equipment. Organizational maintenance consists of operator maintenance and unit maintenance.

(1) Operator maintenance.

(a) Specific individuals have maintenance responsibility for organizational equipment. Proper operation and use of equipment and performance of preventive maintenance inspections and services by responsible individuals are basic.

(b) Officers supervise operator and user maintenance training with the assistance of qualified maintenance personnel.

(c) Operators or users of equipment are responsible for preventive maintenance of equipment prior to, during, and after operation. In addition to being trained in the proper use of their equipment, operators learn to inspect, clean, lubricate, adjust, and preserve equipment as prescribed in applicable technical manuals and lubrication orders. When personnel and facilities are available, a service team

may assist the operator or user in servicing equipment.

(d) Operator repairs consist of minor adjustments and replacements, limited by the tools and repair parts contained in the basic issue list items (AR 700-18) and the degree of elementary mechanical maintenance instruction incorporated in operator training courses. Department of the Army publications that prescribe operator maintenance are based on these criteria.

(2) Unit maintenance.

(a) Trained specialists assigned to the using organization perform unit maintenance on equipment of the organization.

(b) Units use parts from their prescribed loads to perform authorized repairs and immediately requisition replacement parts. Prescribed loads consist of repair parts and special tools prescribed for stockage in applicable Department of the Army publications.

(c) Department of the Army technical publications on specific items of equipment prescribe the extent of repairs and adjustments performed by each unit or organization.

(d) Units are responsible for the battlefield recovery of equipment and materiel and for the evacuation of maintenance units or collecting points of equipment requiring repair beyond the units, capability.

b. DS Maintenance. DS maintenance is that normally authorized and performed by designated maintenance activities in DS of using organizations. The scope of maintenance performed is limited to repair of end items or assemblies for return to user. DS maintenance activities—

(1) Provide maintenance support primarily by replacement of major assemblies and subassemblies; on-site repair, when necessary; and technical assistance and delivery of parts to local using units, when practicable.

(2) Provide direct exchange service by supplying selected serviceable items in ex-

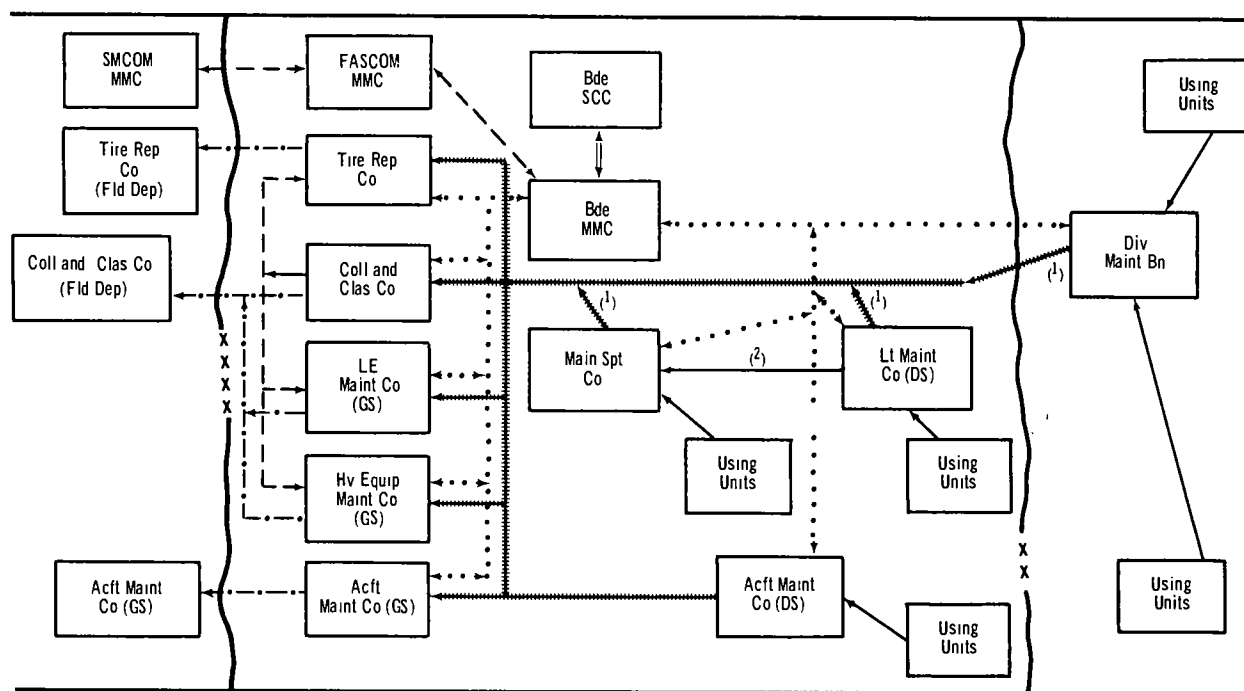
change for unserviceable repair parts, assemblies, or components.

(3) Repair end items of equipment by replacing unserviceable parts, components, or assemblies and repairing selected assemblies and components.

(4) Evacuate unserviceable equipment that cannot be repaired by the DS facility to a point where repairs can be accomplished or to

a salvage collection facility (figs. 10-1 and 10-2).

(5) Assist in performance of maintenance inspections of equipment and inspection of organizational maintenance operations of using units to ascertain the condition of equipment and the effectiveness of organizational maintenance. The conduct of maintenance inspections is a command responsibility.



LEGEND

- ◄====► Coordination between the MMC and the SCC relative to disposition of repaired items, excesses, and scrap and priorities for processing certain types of materiel.
- ====> Evacuation from using units to direct support maintenance units
- ====> Evacuation of items beyond the repair capability or capacity of direct support maintenance facilities to general support maintenance or collection facilities. The MMC provides the evacuation destinations, based on types of items being evacuated and the workloads of general support maintenance units
- Flow of information and instructions relative to types of items requiring evacuation to a higher support category, condition of materiel, and disposition instructions.
- ====> Overflow general support and items requiring depot maintenance.
- ====> Flow of repairable materiel from the collection and classification company to maintenance units.

¹In general, items directed to the collection and classification company consist of economically repairable end items (less aircraft, small arms, and instruments) requiring general or depot support maintenance and those economically repairable end items containing serviceable or repairable components or parts that are to be reclaimed. The bulk of items evacuated from direct support maintenance units consists of unserviceable components, which are normally directed to the appropriate general support maintenance company for repair. Small arms and instruments, items requiring general support-level modification work order application, and end items sent to the general support level for repair and return to the direct support level also are evacuated directly to the appropriate general support maintenance unit. Aircraft end items and components are evacuated directly to the aircraft maintenance company (general support).

²Evacuation for backup direct support maintenance.

NOTE This figure depicts only the evacuation of unserviceable class II, VII, and IX materiel supported by direct support and general support maintenance battalions. It does not depict the evacuation of scrap and other items evacuated through salvage points, aircraft evacuated through aircraft maintenance channels, ammunition and missile system items evacuated through ammunition channels, medical materiel evacuated through medical equipment maintenance units, cryptomateriel evacuated through crypto channels, and foreign materiel evacuated as directed by technical intelligence agencies. Although not depicted in this figure, direct support maintenance units return repaired items to using units or to the direct support unit maintenance float or direct exchange stocks; general support maintenance units normally return repaired items to the supply system.

Figure 10-1. Evacuation flow of unserviceable class II, VII, and IX items supported by DS and GS maintenance battalions (schematic).

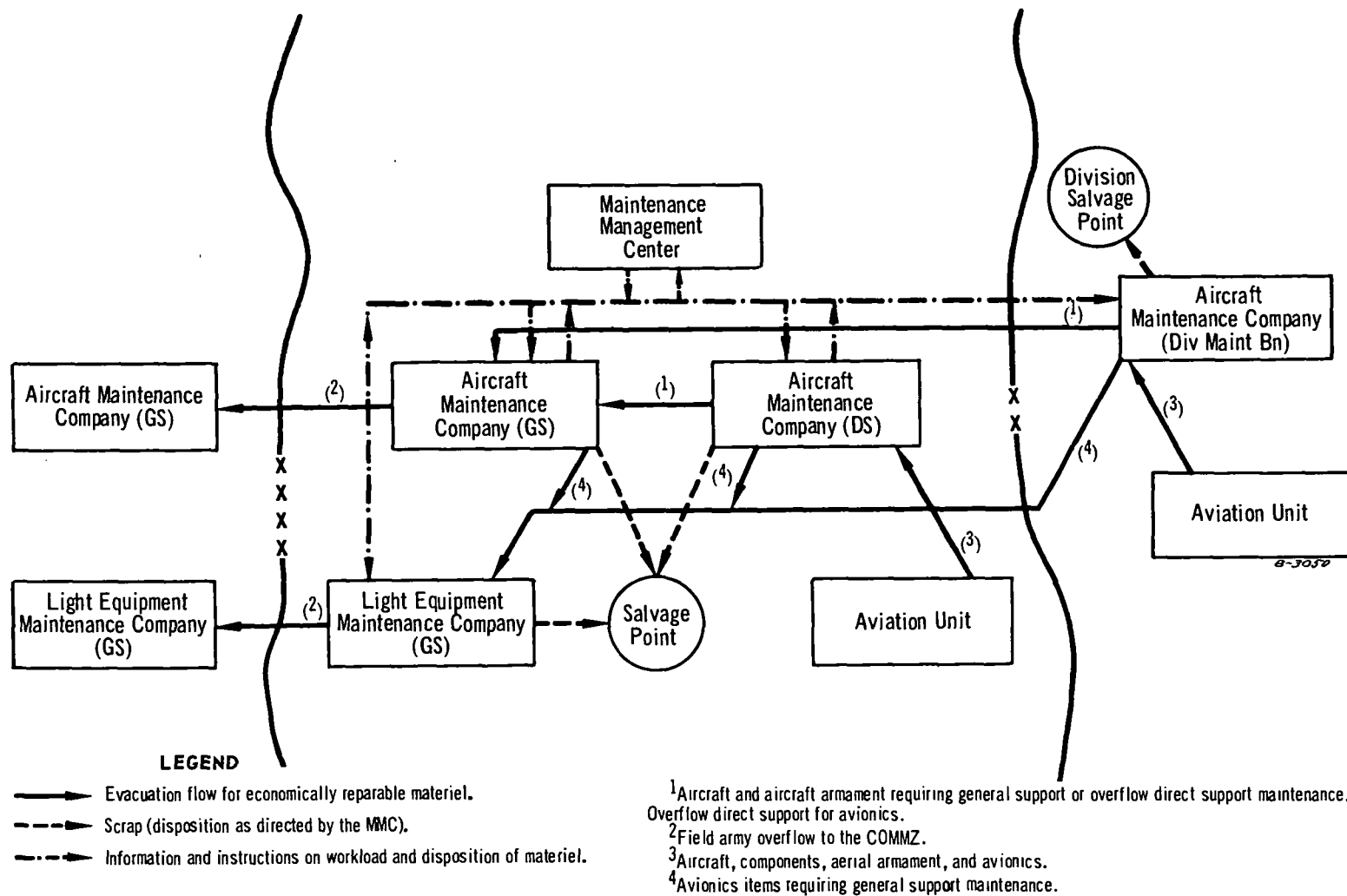


Figure 10-2. Field army aircraft evacuation channels (schematic).

c. GS Maintenance. GS maintenance is that authorized and performed by designated tables of organization and equipment (TOE) and tables of distribution and allowances (TDA) organizations in support of the Army area supply operations. The maintenance mission of GS organizations is oriented toward repair and/or overhaul of major components of large end items as well as the repair or overhaul of smaller type end items for return to supply channels. As an exception, and as the component repair or overhaul workload will permit, large type end items may receive overhaul at the GS level when such items are combat essential or critical to support operations. GS maintenance activities—

(1) Receive equipment for repair from DS maintenance units, collecting points, supply units, and depots for which they are assigned maintenance support responsibilities (figs. 10-1 and 10-2).

(2) Assist DS maintenance units or activities by accepting work that is beyond the capability or capacity of the DS units, thus insuring the mobility and capability essential to successful operation of the DS units or activities.

(3) Normally repair end items of equipment and overhaul assemblies and subassemblies.

(4) Normally return repaired items to GS supply units or depots, although they may return them to DS supply units in some cases.

d. Depot Maintenance. Depot maintenance is maintenance of unserviceable materiel that requires repair, overhaul, or rebuild of end items, parts, and assemblies for return to depot stocks. Depot maintenance reduces requirements for procurement of stocks of serviceable equipment and supports lower categories of maintenance when repairs are beyond the capabilities of lower categories.

(1) Rebuild of end items is authorized only when overhaul does not attain the standard required for a specific item or program (AR 750-5). When authorized, depot maintenance shops in the communications zone (COMMZ) usually perform the rebuild. Normally, depot maintenance is not performed in the theater unless authorized by Department of the Army.

(2) Allocation for rebuild of components and assemblies may be in the assignment of maintenance functions in maintenance allocation charts prepared in accordance with AR 750-6.

(3) Depot maintenance activities provide for—

(a) Overhaul or restoration of materiel to a serviceable condition, using new, overhauled, or rebuilt assemblies and parts.

(b) Modification of materiel, including changes in design or assemblage.

(c) Renovation of conventional and special ammunition, including restoration to a serviceable condition by operations more hazardous than normal maintenance. It usually involves replacement of components.

(d) Fabrication of items not generally available through supply channels or from commercial sources. Items fabricated are usually interim or substitute items for support of field operations pending availability from production, items not routinely distributed through commercial channels, or items required in small quantities or with excessive leadtimes. This includes preparation of modification work order kits.

(e) Performance of repairs on unserviceable depot stocks.

(f) Support of lower category activities by receiving unserviceable, economically repairable equipment for repair and return that is beyond the technical capabilities of these units, or to reduce overloads in these units.

(g) Support of military operations overseas during wartime, as necessary and feasible, in general or for specific commodities.

10-8. Repair Parts Supply

a. DS maintenance units supply supported units repair parts used in performing organizational maintenance operations. Those combat support units that have a DS maintenance capability (e.g., signal units) will receive repair parts through GS supply units or DS maintenance units, as designated.

b. Maintenance units may cannibalize serviceable assemblies and components of unserviceable, uneconomically repairable equipment, when authorized (para 10-11i and k and AR

750-50). ICC's and SCC's determine requirements for these assemblies and components.

c. Maintenance units store minimum levels of supplies, based on appropriate selective stockage criteria, operational requirements, available transportation, and enemy capabilities.

d. Appropriate maintenance units store and issue repair parts, components, and assemblies that meet one or more of the following criteria (in addition to recurring or anticipated demand):

(1) Repair parts for special-purpose equipment for which specific maintenance organizations have maintenance responsibility.

(2) Mechanical, electrical, or electronic

equipment requiring relatively complicated maintenance in storage, in transit, or at time of issue.

(3) Critical items of equipment that require decision on whether repair, replacement, or salvage is the most practicable course of action. The basis for this decision is knowledge of maintenance workload and availability of repair parts and replacement items.

e. There are three significant features of the Army field stock control system control supply operations in maintenance organizations. These features are selective stockage, stock accounting records, and demand data (AR 711-16, AR 711-25, and AR 725-50).

Section III. MAINTENANCE POLICIES AND PRINCIPLES

10-9. Maintenance Principles

a. The maintenance system is organized to insure adequate maintenance support close to users of equipment. This support must be aggressively pushed forward to the user to provide maximum service.

b. The maintenance system is most efficient when founded on sound preventive maintenance practices in using organizations. This includes correct operation and use of equipment and early detection and correction of incipient equipment failures.

c. GS maintenance normally is on an area basis. Maintenance facilities are consolidated to an extent consistent with operational and dispersion requirements.

d. Each DS and GS maintenance unit is authorized a supply of repair parts, assemblies, and tools commensurate with its maintenance responsibilities. Operational readiness float stocks of end items may also be authorized. No category performs the work of a higher category to the neglect of its properly assigned functions.

e. Dispersion of DS maintenance units is normally lateral and in depth to provide close maintenance support to units being served. As far as practicable, DS maintenance units support the same tactical units throughout an operation. This improves liaison, understanding, and cooperation between supporting and sup-

ported units. DS maintenance is performed as far forward as is consistent with the tactical situation, time available, capabilities of personnel, and availability of repair parts and tools. It is often more desirable to move maintenance personnel to the equipment than to move the equipment to maintenance personnel. To satisfy this requirement, mobile contact teams from supporting maintenance organizations perform on-site repairs, replenish repair parts stock of supported organizations, and furnish technical advice and other maintenance support to using units.

f. GS maintenance facilities normally are situated to facilitate repair of equipment beyond the capabilities or the capacity of GS units. Dispersion of GS units must be consistent with transportation resources for evacuation of unserviceable equipment and with the threat of enemy attack.

g. When authorized in the theater depot maintenance support facilities are in or near field depots to facilitate repair of equipment beyond the capabilities of GS maintenance units and to maintain depot equipment stocks in a ready-to-use condition.

h. In the Army in the field, DS supply units and maintenance units are the using unit's source contacts for supplies and for maintenance support beyond that authorized to be accomplished by the using units.

i. Maintenance shops and facilities, once established, remain in operation in the same locality as long as practicable without sacrificing service to supported units.

j. The provision of maintenance support and maintenance supplies to using organizations by DS units is a basic logistic principle. Adherence to this principle results in fewer requisitions on supply depots. It also permits faster supply support of using units and improves stock control.

k. A system of recovery and evacuation is established for equipment (figs. 10-1 and 10-2). This system permits evacuation of an item from the using unit to the category of maintenance at which it can be repaired and returned to the user, stock, or salvaged. For items having high scrap value, the ultimate destination may be the continental United States (CONUS).

l. Using units and DS maintenance units may become the sole sources of maintenance under nuclear or rear area attacks. Equipment that cannot be repaired without GS assistance is made serviceable by cannibalization of the required parts from other unserviceable equipment, or it is evacuated.

10-10. Technical Assistance

Technical assistance service includes training in operation, use, and maintenance of equipment and guidance in logistic planning, liaison, and delivery of new and replacement equipment and repair parts.

a. DS maintenance units provide technical assistance to users of equipment. Assistance includes guidance on organizational maintenance and supply to insure correct interpretation of maintenance and supply procedures and satisfactory status of tools, test equipment, repair parts, cleaning and preserving materials, and condition of equipment. Supply and maintenance technical assistance is available from the CONUS logistic base to assist commanders in solving those supply and maintenance problems incident to the materiel readiness of their commands that are beyond their capabilities to solve with their organic resources.

b. Military or civilian personnel with broad experience in equipment maintenance and oper-

ations teach and assist users and maintenance personnel to operate and maintain equipment, repair parts, and equipment supply. They advise using units on efficient use of equipment and advise maintenance personnel regarding repair techniques and shop practices.

10-11. General Maintenance Policies

a. Maintenance organizations maintain mobility and flexibility compatible with that of supported forces.

b. Repair of end items of equipment normally is accomplished by the immediate replacement of unserviceable components to expedite prompt return of the end items to service. If the unserviceable component is excess to the requirements of the unit or beyond the unit's capability to repair, it is evacuated to higher categories of maintenance.

c. Repairs are performed in the lowest category of maintenance consistent with the nature of the repair; authorized repair parts, tools, and test equipment; time available; skill of personnel; and the tactical situation.

d. Supporting maintenance units perform the maintenance function of supported units when required by practical considerations and authorized by the commander having jurisdiction over both the supported and supporting units. This procedure should be used with caution, because the performance of organizational maintenance by DS personnel results in degradation of the DS capability.

e. Evidence of abuse or of failure to perform assigned maintenance functions are reported to the proper commander for corrective action.

f. A technical inspection is made of each piece of equipment, component, or assembly requiring repair to determine the extent of repair necessary before beginning any repair or replacement of parts, components, or assemblies.

g. Supporting units may exchange unserviceable items of equipment of using units for like serviceable items when repairs are beyond the supported units' capabilities and when repair and return to using units cannot be accomplished within specified periods prescribed by the major commander. Immediate repair by replacement is governed by operational require-

ments of the supported units, complexity of repairs required, availability of repair parts and assemblies required to accomplish the repairs, and availability of serviceable replacement items.

h. A required unserviceable, economically reparable item is evacuated through maintenance channels to the point where repairs are made, and the item is returned to the user, to stock, or to the operational readiness float. ICC's and SCC's determine the requirement for items of equipment to be repaired.

i. Cannibalization is a source of supply for slow-moving or critically short repair parts (para 10-8b and AR 750-50). DS and GS maintenance organizations perform controlled cannibalization of uneconomically reparable materiel, as authorized, with the objectives of increasing the combat readiness of units and the amount of operable equipment. Cannibalization of materiel is not authorized to be performed by other than designated maintenance units and salvage organizations.

j. Removal of serviceable parts from one item of serviceable equipment for use in repairing another item of equipment normally is not authorized.

k. Removal of serviceable parts from one item of unserviceable, economically reparable equipment for use in repairing another item of equipment is prohibited except—

(1) In extremely urgent cases when contact with a supporting maintenance unit cannot be established quickly, or when operational requirements exist for constant readiness and replacement parts are not immediately available.

(2) As may be specifically authorized by the TASCOC commander.

(3) For end items authorized for disposal in accordance with current directives. This will include both economically reparable and serviceable surplus end items and will be done only by maintenance personnel.

l. The Department of the Army establishes criteria and standards prescribing economical repair and overhaul limits for items of equipment. Deviations are a matter of policy to be determined between the Department of the Army and major or Army component commanders.

m. An uneconomically reparable item is evacuated through maintenance channels to a salvage collecting point. DS or GS maintenance organizations remove usable or economically reparable assemblies and components from the item (cannibalization).

n. Excess, serviceable, or unserviceable economically repairable equipment is reported, disposed of, or shipped to designated maintenance or supply installations in accordance with instructions issued by the ICC.

o. Supply of repair parts is a normal mission of DS maintenance units.

p. Calibration and certification of testing and measuring equipment are functions of maintenance.

q. Mobility requirements of the Army, and the susceptibility to total loss of aircraft that are not in a high state of maintenance, necessitate particular emphasis on expeditious repair of Army aircraft.

Section IV. MISSILE SYSTEM MATERIEL

10-12. General

a. The technical design and tactical employment concept of each system determine logistic support concepts for missile systems. This section states the general principles of missile maintenance and supply, recognizing the requirement for significant deviations from conventional logistic support concepts.

b. Maximum self-sufficiency is a mandatory requirement for missile-firing units in the field army.

c. The critical requirement for quick reaction to the needs of missile-firing units necessitates the development of logistic support procedures that are immediately responsive to artillery commanders.

d. Materiel in this section is applicable to missile system materiel and corresponding ground support equipment. Policies relating to missiles are not always compatible because of differences in unit missions; this section points

out qualifications wherever these differences exist.

e. Bases for the determination of maintenance concepts and functions for each missile and fire distribution system are the concept of tactical employment of the system; the inherent characteristics of electronic equipment; overall manpower requirements; and comparison of dollar cost of components, assemblies, and repair parts.

10-13. Maintenance Criteria

Consideration of the following criteria is essential in determining maintenance functions to be performed by the user:

a. Availability of trained personnel in the using unit to perform required checks and adjustments, to analyze malfunctions, and to locate and correct troubles.

b. Accomplishment of repair or replacement as close to the origin of failure as possible.

c. The maintenance design philosophy on which the missile system is designed (piece-part repair, subassembly or assembly replacement, or section replacement). Test equipment, insurance items, and repair parts must be consistent with this design philosophy.

10-14. Categories of Maintenance

a. DS maintenance may be organic to the missile-firing unit or provided by missile support elements furnishing support on an area basis.

b. The operational requirements and sophisticated equipage of certain missile systems dictate that maintenance functions required to maintain systems at peak operational readiness be performed within using units. This maintenance capability must include the skills, tools, test equipment, and repair parts required to accomplish immediate in-position repairs of the missiles and their associated firing and control equipment. Such capability is provided as an organic DS element.

c. Normally, general support maintenance is provided by a guided missile maintenance com-

pany, GS, augmented if necessary with additional capability.

d. In general, the four categories listed in paragraph 10-7 are applicable to maintenance support of missiles and their associated firing and control equipment.

(1) *Organizational maintenance.* Performed by the operator, organizational maintenance includes use, preservation, lubrication, adjustment, minor repairs, testing, and replacement of assemblies and repair parts. Specially trained personnel may also perform organizational maintenance. These personnel operate special tools and test equipment; replace components, assemblies, subassemblies, and repair parts; and perform repair when necessary. In some systems, these personnel are also the operators.

(2) *DS maintenance.* Trained personnel perform DS (and limited GS) maintenance. These personnel have a thorough knowledge of components of the specific system and have a larger assortment of repair parts and more precise tools and test equipment than those available for organizational maintenance. These personnel may be organic to the missile unit.

(3) *GS maintenance.* Trained personnel perform GS maintenance when the time factor allows limited rebuild of assemblies, components, and end items.

(4) *Depot maintenance.* The service depot or manufacturer's installation performs depot maintenance. This is the highest echelon of maintenance, covering major overhaul or complete rebuild of components, assemblies, or end items and employing production-line and assembly-line methods.

10-15. Responsibility

Missile-firing unit commanders are responsible for maintenance of their missile systems. They execute this responsibility through organic maintenance capability and by placing support requirements beyond organic capability on designated support units.

Section V. RESPONSIBILITIES

10-16. General

a. *Individual Responsibilities.*

(1) Individuals are responsible for equipment issued for their own use and habitually

under their own care or for which they are the assigned operators.

(2) Operators or users of equipment are responsible for proper preventive maintenance of assigned equipment before, during, and after actual operations.

b. Command Responsibilities. Commanders are responsible for—

(1) Insuring that equipment issued to their units or organizations is in a serviceable and combat-ready condition and that it is properly used, maintained, and accounted for.

(2) Advising higher commanders of their equipment replacement and maintenance support requirements.

(3) Complying with instructions and procedures for preventive maintenance operations, training their commands in preventive maintenance of equipment, and allocating sufficient time for performing preventive maintenance. Training in preventive maintenance is equal in importance to other military training.

(4) Assigning specific individuals maintenance responsibilities for each item of organizational equipment.

(5) Preventing abuse of materiel under their control. They investigate evidence of abuse and take corrective action.

(6) Maintaining records on the usage, maintenance, and modification of certain items of equipment as prescribed in applicable regulations and directives.

(7) Insuring prompt evacuation of unserviceable equipment from using and maintenance units or activities to a maintenance activity that has the capability to restore equipment to a serviceable condition.

(8) Designating an individual or staff element of the command as the unit materiel readiness officer. This officer has responsibility for coordination and supervision of materiel readiness functions of the command.

c. Staff Officer Responsibilities.

(1) Staff officers provide the commander advice and assistance in all phases of maintenance in their respective fields of interest.

(2) See FM 101-5 for specific responsibilities of staff officers.

10-17. Theater Army Commander's Responsibilities

The theater army commander—

a. Determines maintenance support requirements.

b. Formulates plans and policies for provision of maintenance support.

c. Provides staff supervision over execution and implementation of maintenance plans and policies.

d. Allocates maintenance units to major subordinate commands based on requirements, priorities, and availability of maintenance units.

10-18. TASCOM Commander's Responsibilities

The TASCOM commander—

a. Implements theater army plans and policies for providing—

(1) Backup GS maintenance for field army maintenance units.

(2) DS and GS maintenance for units and installations in the COMMZ.

(3) Evacuation to the CONUS of unserviceable, economically repairable items requiring depot maintenance, in accordance with Department of the Army policies. When proper skills and facilities are available in the theater, depot maintenance may be authorized in the theater for designated end items and components.

(4) Acquisition, storage, and supply of repair parts required for maintenance of Army equipment in the theater.

b. Insures staff supervision over maintenance activities.

c. Assists theater army in determining maintenance support requirements.

10-19. Field Army Commander's Responsibilities

The field army commander—

a. Is responsible for maintenance of items issued to field army units.

b. Insures staff supervision over execution and implementation of maintenance plans and policies.

c. Allocates maintenance units to major subordinate commands based on requirements, priorities, and availability of maintenance units.

10-20. FASCOM Commander's Responsibilities

The FASCOM commander—

a. Implements field army plans and policies for providing—

(1) DS maintenance for field army units and designated units and installations of other commands located in the field army area. (Maintenance units organic to divisions accomplish DS maintenance, provide technical assistance, and furnish repair parts to divisional units.)

(2) GS maintenance for field army units and designated units and installations of other commands located in the field army area.

(3) Acquisition, storage, and issue of maintenance supplies that meet field army stockage criteria.

(4) Staff supervision over maintenance activities.

b. Determines through inspections the adequacy of maintenance in the field army.

c. Advises the TASCOC of field army requirements for maintenance support for current and future operations.

10-21. Corps Commander's Responsibilities

The corps commander—

a. Is responsible for maintenance of items issued to corps units.

b. Insures staff supervision over execution and implementation of maintenance plans and policies.

10-22. Corps Support Command Commander's Responsibilities

The corps support command (COSCOM) commander—

a. Implements plans and policies for providing—

(1) DS (nondivisional) GS maintenance for the supported corps' assigned and attached units.

(2) Acquisition, storage, and issue of maintenance supplies required for the COSCOM mission.

(3) Staff supervision over maintenance activities.

b. Determines through inspections the adequacy of maintenance performed by COSCOM units.

c. Advises the TASCOC of corps requirements for maintenance support for current and future operations.

Section VI. INSPECTIONS AND STAFF VISITS

10-23. Inspections

a. *General.*

(1) Inspections are the means by which commanders ascertain serviceability of equipment and promote efficient maintenance.

(2) All inspections of equipment and maintenance operations are under command authority.

(3) Supply and maintenance personnel of supporting units and activities assist commanders in performing inspections to ascertain adequacy and effectiveness of organizational maintenance.

b. *Command Maintenance Management Inspections (AR 750-8 and DA Pam 750-10).* Command maintenance management inspections provide responsible commanders the means of determining for each subordinate

unit or activity the adequacy and effectiveness of maintenance operations in the unit or activity and mission readiness of equipment, ammunition, and explosives.

c. *Reports.* The inspecting agency prepares inspection reports, and the commander initiates corrective action when necessary.

10-24. Staff Visits

Maintenance staff visits under command authority determine adequacy of—

a. Maintenance doctrine, policies, procedures, and instructions.

b. Training of personnel in operation, use, and maintenance of equipment.

c. Tools and test equipment.

d. Maintenance support.

Section VII. MAINTENANCE SUPPORT OF STABILITY OPERATIONS

10-25. General

The administration of large-scale maintenance programs in support of stability operations is complex. In addition to maintaining U. S. Army equipment, it may be necessary to support the host country's maintenance system, which may include foreign and obsolete equipment. Decentralized operations and limitations on movement imposed by the security situation create additional problems. It is essential that maintenance shops be constructed, equipped, and staffed with qualified repairmen. Properly scheduled production insures that needed items, but not excesses, are repaired. An effective procedure is necessary to insure priority repair of inoperative equipment. A system of preventive maintenance is essential and depends on a comprehensive system of inspections (including technical and spot-check inspections by maintenance organizations, inspections by commanders, and supplemental inspections of host country maintenance by U.S. Army advisors) and on a system of immediate repair or replacement.

10-26. Maintenance Problems

a. In stability operations, large-scale diversion through pilferage of military repair parts and supplies to the civilian economy may become a difficult problem. The host country may not have adequate legitimate sources for the supply of repair parts. There also may be lack of adequate accounting controls or deficient control procedures at railheads and equipment collecting points.

b. Maintenance failures are often attributable to lack of command emphasis on adherence to prescribed procedures. Implementation of corrective action and maintenance inspections to check the progress of corrective action will contribute to successful maintenance procedures.

10-27. Preventive Maintenance

The nature of stability operations precludes elaborate maintenance support; therefore, there is need for a high level of preventive maintenance and responsive backup support. Preventive maintenance is vital in areas where adverse weather and terrain conditions necessitate more than normal maintenance and where supported indigenous forces are not fully familiar with the importance of maintenance.

10-28. Backup Maintenance

DS repair teams may accompany combat and combat support units to provide on-the-spot minor repairs and limited direct exchange. Mobile maintenance teams from combat service support units should be available to using units to assist in preparation for operations and in rapid recovery from completed operations. When maintenance services cannot accompany combat and combat support units, there must be provision for direct exchange of unserviceable items, such as weapons and radios, in selected stockage positioned at security posts and combat bases.

a. Time must be available before and after each mission to perform repairs and obtain replacement items.

b. DS elements must provide rapid maintenance support at each static security post and combat base. Although emphasis will be on repair by replacement (direct exchange), efforts will be made to repair items without performing complete overhaul or rebuild. Planning will insure that only fast-moving, high-mortality, combat-essential items are included in the stockage of float items.

c. It will be necessary to evacuate, or otherwise dispose of, items that cannot be feasibly repaired at the DS level.



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CHAPTER 11

LOGISTICS—TRANSPORTATION

Section I. GENERAL

11-1. Introduction

a. The scope of transportation encompasses movement of personnel and materiel and the equipment, facilities, and management necessary to accomplish such movement.

b. The commander of a unified or a specified command coordinates the air, sea, and land transportation means assigned to his command. He assigns responsibilities for the operation of air and water terminals in a theater of operations.

c. Control and allocation of transportation in the theater is under the staff supervision of the theater logistics directorate (J4). When required, the theater establishes a staff agency (the joint military transportation board (JMTB)) to recommend allocation of theater transportation capabilities. The JMTB reports to the J4 and has representation from each of the Military Services and major joint forces in the theater and, when appropriate, from host and allied nations. The chief of this agency is a member of the theater staff.

d. Theater army normally provides surface transportation support to theater air and naval components besides that provided to Army forces in the theater. Joint agreements and directives of the theater commander specify details of such responsibilities to air and naval elements. The theater army commander normally assigns responsibility and resources for surface transportation support to theater army support command (TASCOM) and field army commanders.

e. The extensive requirements for military transportation in the theater of operations have a heavy impact on the civilian economy and populace in the area. Transportation planners must coordinate with the civil affairs

officer to insure minimum interference between military and civilian transportation. While civilian transportation means will assist the military transportation effort, planners must make provisions for essential civilian transportation.

11-2. Transportation Service

a. Specialists integrated into the general staff sections perform transportation staff functions at the TASCOM, field army support command (FASCOM), field army, and corps. In divisions, the transportation officer is a special staff officer assigned to the division support command and works with the division staff. These staff officers are responsible for technical supervision of the transportation service required by the command. The transportation command and the transportation brigade provide transportation services in the TASCOM and the FASCOM, respectively.

b. Transportation capability available to the theater army commander may include Army elements and other Military Services and agencies.

(1) *Army elements.*

(a) Transportation units.

(b) Army aviation units.

(2) *Other Military Services and agencies (support).*

(a) Navy intratheater ocean and coastal shipping.

(b) Ocean shipping operated or controlled by the Military Sea Transportation Service (MSTS).

(c) Air transportation operated by theater air force or theater navy. For doctrine on combat service support airlift, see FM 100-27.

(d) Air transportation operated or con-

trolled by the Military Airlift Command (MAC).

(e) Local civilian transportation services and facilities.

11-3. Basic Principles

a. Organization of transportation support provides for management and coordination of various modes of transportation (except pipelines) and integration of available civilian transportation capabilities into movement plans and programs. Integration of all modes of transportation into one system accomplishes the movement mission.

b. Transportation support serves the theater as a whole and must have a high degree of flexibility to permit necessary diversion, concentration, and allocation of transportation. Flexibility is of particular importance in nuclear operations. Centralization of direction and decentralization of execution attain the desired integration and flexibility of the system.

c. Organization of transportation support must take full advantage of and employ all available transportation modes and resources. The organization of units operating each means of transportation facilitates centralized direction of support.

Section II. MOVEMENTS MANAGEMENT

11-4. General

Movements management, a function of the staff movements officer, provides for the best use of transportation resources in the movement of supplies and personnel. Movements management involves two major functions—transportation movements and highway regulation.

11-5. Transportation Movements

Transportation movements are concerned with planning, coordination, programing, and supervising the allocation and use of the available transportation resources to meet the movement requirements of the command. To accomplish this, movement control centers (MCC) are established at major support command headquarters, and transportation movement offices are established at depots, terminals, and other critical points in the transportation system throughout the theater as required.

11-6. Highway Regulation

Highway regulation is concerned with planning, scheduling, routing, and directing the use of the highway net available to the command to realize the net's maximum potential. This regulation is accomplished by establishing a highway traffic headquarters at those major commands having area jurisdiction and by establishing highway regulation points and traffic control posts to provide information to the highway traffic headquarters and to supervise the implementation of its plans.

11-7. Control of Movements

The commander charged with providing combat service support (i.e., theater, theater army, field army, and independent corps) exercises centralized control of movements. The echelon of command that has knowledge of the total requirement and the total capability can best correlate movement requirements and capabilities.

a. The TASCOC MCC serves theater army, and as required, other U.S. Forces and host nation or allied forces. As the central movements management agency, it prepares movement and port clearance plans and programs, conducts necessary liaison, supervises the activities of the field transportation movement offices, and insures proper use of available movement capabilities. In carrying out its functions, the MCC uses the capability of the automatic data processing unit assigned to the transportation command. The transportation command provides the necessary personnel to staff the TASCOC MCC and highway traffic headquarters, transportation movements offices in the field, and highway regulation points.

b. The FASCOM MCC, the corps support brigade MCC, and their subordinate transportation movement offices accomplish movements management in the field army (except for tactical movements and movement of bulk class III supplies). The MCC's accomplish movement planning, prepare and supervise the execution of FASCOM or support brigade move-

ment programs, maintain an in-transit inventory of shipments, and maintain liaison with transportation movement agencies of the TASCOM, host nation, and other commands as required.

Section III. TERMINALS

11-9. General

a. Terminal operations comprise those functions for loading, unloading, and in-transit handling of personnel and cargo at or between origin and destination when transfer is necessary from one transportation mode or unit to another. Generally, classification of terminals is by principal transportation mode (water, air, motor transport, or rail). Any terminal, regardless of classification or allocation, may perform embarkation or debarkation functions, or both.

b. Operation of terminal installations (except aerial ports and bulk petroleum facilities) and transfer points is a responsibility of the transportation command. At large, complex terminal installations, there may be a requirement for assignment of detachments or units from other Military Services. These units assist Army transportation agencies by providing technical advice pertaining to identification of items, special handling of certain items, and other matters of a technical nature.

c. For details on terminal operations, see FM 55-55-1 (Test).

11-10. Water Terminals

a. Water terminals include ports, harbors, beaches, and other portions of the coastline used for, or reserved for, the loading or discharge of troops and cargo. Water terminals normally are the means of entry into a theater of operations for the bulk of materiel and units shipped to the theater. One transportation group can supervise the operation of a number of water terminals spread over a large coastal area. Each terminal is under the command of a transportation terminal battalion.

b. Construction of temporary facilities supplements or replaces permanent water terminals and achieves dispersion.

11-8. References

a. FM 55-4-1 (Test), FM 55-6-1 (Test), and FM 55-10 provide details concerning transportation movements.

b. FM 101-5 discusses staff responsibilities for transportation movements.

c. Control of ship arrivals at water terminals reduces concentration and possible loss. Discharge and loading of ships should take place at dispersed points within terminal areas. Rapid terminal clearance is essential. Only those depots and other installations essential to terminal operations should be in the terminal areas.

d. The following factors determine the number and location of water terminals needed to provide suitable dispersion:

(1) Friendly tactical and logistic situation.

(2) Total terminal capacity required.

(3) Enemy capabilities.

(4) The number, capacities, and proximity of ports, beaches, and other areas suitable for discharge of ships.

(5) Personnel and equipment available for establishing and operating terminals, including indigenous resources.

(6) Availability and proximity of highway or rail facilities for ease in terminal clearance.

e. It may be necessary to use only a portion of the capacity of established major terminals that afford protected anchorages and well-developed inland transportation systems. A few major terminals may provide sufficient total capacity, but the resulting concentration of shipping activity would present lucrative targets. For this reason, routing of the shipping load is not only through major water terminals but also through smaller terminals and unloading points (beaches) and air terminals. It is desirable that some of the terminals possess a capacity in excess of their planned use so that shipping can be quickly diverted in case of loss of terminal capacity elsewhere. Increasing the number of terminals increases the requirement

for personnel and equipment to construct, maintain, and operate terminal and beach facilities; to provide additional communications; and to construct and maintain additional road and rail facilities.

f. To speed and simplify handling, cargo is shipped overseas in unitized containers or pallets to the extent practicable. (The terminals must have suitable materials-handling equipment to handle unitized cargo.)

g. Landing of personnel and cargo will be on beaches when port facilities are inadequate, or otherwise unavailable, or when the threat of hostile attack necessitates dispersion beyond the limits of established port facilities. Terminal units have the training and the equipment to operate beaches as well as ports.

h. The ability to clear supplies and personnel from terminals to inland destinations often is a limiting factor in military operations. Clearance capability primarily determines beach capacity. The amount of clearance transportation and the adequacy of the beach exits leading to lines of communications are considerations when computing clearance capability. Hydrographic characteristics of the beach area, weather, and topographic characteristics of the landing area also affect beach capacity.

i. The availability of transportation and the ability of the inland destination to unload and return transport to the beach are limiting factors in the quantity of personnel and supplies that can be discharged and moved across a beach to inland destinations.

j. Special-handling and floating equipment used in beach operations includes floating and mobile cranes, floating piers, harbor craft, amphibious vehicles, landing craft, barges, tactical bridges, spud-type barges (prefabricated piers), rough terrain materials-handling equipment, and other cargo discharge devices.

k. In future logistic-over-the-shore (LOTS) operations, amphibious vehicles and helicopters will perform movement of general cargo from ship to inland points. Their use permits movement of oceanborne cargo directly from ships to dispersed inland transfer points with no rehandling at the shoreline. Landing craft will be used as required between ship and shoreline or shoreline to shoreline. Where

available, roll-on, roll-off shipping will transport wheeled and tracked vehicles overseas and will discharge the vehicles onto available beach discharge lighters or landing craft. Vehicles discharged from the lighters at the shoreline will move inland under their own power or by towing.

11-11. Air Terminals

a. Air Force units of the theater command in which a military operation occurs normally operate the Air Force terminals. However, the MAC may operate MAC terminals in the theater of operations. The bulk of personnel replacements to the theater and rotatees from the theater move by air from the CONUS or offshore bases. Army transportation teams provide liaison between Air Force units operating terminals and Army units receiving personnel.

b. The field army establishes and operates Army air terminals in the corps rear area and the field army service area to support Army air lines of communications. Facilities and services at these terminals provide the maintenance, movements management, and cargo transfer necessary to insure effective use of available aircraft in moving troops and supplies into and out of the airlift system. The senior officer of the aircraft units habitually based at these facilities normally acts as terminal commander.

11-12. Motor Transport Terminals

Motor transport terminals are normally at both ends of a line-haul operation, where they form the connecting link between local-haul and line-haul service. They may also be at intermediate points along the line-haul route. Terminals provide vehicle dispatch service, maintenance facilities, cargo transfer operations, and temporary holding areas for cargo backlogs and may contain, in whole or in part, trailer transfer facilities.

11-13. Rail Terminals

Rail terminals may include yard tracks, repair and servicing facilities, accommodations for train crews, and railheads. They are at originating and terminating points of trains and at sites that mark the limits of the rail operating

divisions. A railhead is a small yard or terminal on or at the forward end of a military railway where troops, supplies, and equipment are transferred to other modes of transportation or distributed to using organizations.

11-14. Temporary Holding Areas

The transportation command establishes temporary holding areas in terminals for handling cargo en route over lines of communications. The principal purpose of these holding areas is to provide facilities for in-transit cargo awaiting transportation. Facilities vary from open areas to large warehouses and elaborate rail, highway, water, or air facilities.

11-15. Transfer Points

a. The transportation command establishes transfer points where transfer of cargo from one means or unit of transportation to another is necessary and where both means will be available simultaneously. A change of gage on a railway also requires transfer points. When cargo is transferred from a transportation service to transportation belonging to the consignee, the consignee is responsible for handling the cargo.

b. Transfer points generally use transportation command units and have such equipment as cranes, roller conveyors, and other cargo-handling equipment.

Section IV. WATER TRANSPORTATION

11-16. General

The chief characteristic of water transportation is economical movement of large volumes of cargo at relatively slow speed over great distances. Its utility relates to the adequacy of loading and unloading facilities and its vulnerability. Water transportation includes ocean, coastal, and inland waterway shipping.

11-17. Ocean Shipping

The MSTS provides and controls ocean shipping. Primarily, the bases for military shipping requirements are volume of troops and cargo to be transported and length of the sea routes. Priority in shipping allocations to theaters of operations is in accordance with the overall strategic plan. A theater commander may prescribe ports of destination for vessels en route to his theater. To meet requirements of the theater commander, the MSTS may establish ship holding or diversion points to permit vessels entering the theater to be held or diverted at these points and moved to destinations as discharge facilities become available. The theater commander exercises control over ocean shipping allocated for intratheater use through MSTS offices in the theater.

11-18. Coastal Shipping

The MSTS, the U.S. Navy, and, in some cases, the U.S. Army operate coastal shipping. Coastal ships vary in size, but are normally shallow-draft vessels capable of operating in

water areas where channel depths or maneuver area prohibits employment of deep-draft ships. Coastal shipping includes both self-propelled vessels and towed barges. A host nation monitors, and may control, all ship movements in its coastal waters.

11-19. Inland Waterways

a. The transportation command controls and operates U.S. military inland water transportation. Inland water transportation is comparable to rail transportation in its ability to carry large tonnage and heavy single loads, but it is slower. Inland waterways include lakes, rivers, and canals with adequate navigability to permit passage of barge traffic or river shipping. When present in a theater of operations, inland water transportation is a valuable means of moving bulk cargoes, such as coal, construction materials, and bulk petroleum products. Use of inland water transportation frees faster means of transportation for higher priority shipments.

b. Inland waterways normally extend inland or along a coastal area from a deepwater terminal, which serves as the base of operations for the inland waterway system. Considerations in planning, developing, and using inland waterways include—

(1) Seasonal floods and the drying up or freezing over of waterways.

(2) Availability of skilled indigenous per-

sonnel, such as bargemen, pilots, and tugboat operators, to augment transportation personnel.

(3) Amount and condition of military and local equipment and facilities.

(4) Types of barges or craft suitable for the waterways.

(5) Engineer service requirements (construction of bridges and removal of obstacles, channel depths, widths and heights of clearances, development of transfer points, and feeder rail and highway nets).

c. Inland waterway equipment includes lighters, barges, and towboats. Terminal facilities include piers, wharves, materials-handling

equipment, marine maintenance shops, and signal communications.

d. Inland waterways have a comparatively low vulnerability to attack because they are linear targets. However, they may be extremely vulnerable to guerrilla activities. Destruction of locks, gates, floating equipment, siphons, aqueducts, levees, and embankment walls can deny the use of individual inland waterways for protracted periods of time. Integration of inland waterways into the transportation net is a means of dispersing and expanding transportation capabilities.

e. Paragraph 8-4 discusses riverine operations:

Section V. RAILWAYS

11-20. General

a. Military personnel or civilians under military direction construct, maintain, or operate the military railways of a theater of operations that support U.S. or allied forces (FM 55-21-1 (Test)). The military value of railways lies principally in their ability to haul large tonnages continually over long distances at a uniform rate of speed. Rail transportation facilities (e.g., marshaling yards, large railroad terminals) present lucrative targets. Crowding of these facilities with rolling stock is avoided. Maintenance and repair equipment should not be concentrated in the yards. The enemy will probably attempt to destroy tunnels, deep cuts and fills, and bridges in the hope of paralyzing traffic throughout the rail net. Such interdiction may necessitate extensive repair and rehabilitation of rail lines essential to logistic support. Railways may be extremely vulnerable to guerrilla activities.

b. Rail operations in a theater are classified as phase I, II, or III, according to the degree of military effort required. Phase I is operation by military personnel. Phase II is operation by military personnel augmented by civilians. Phase III is operation by civilians with minimum military supervision. In addition, a friendly government may provide railway service to U.S. Forces.

11-21. Operations

a. The operation of military railways in a

theater of operations is a responsibility of the transportation command and its subordinate railway units. In a landmass theater, the basic responsibility for railway operation may be with the host nation. By agreement or treaty between the United States and the host nation, U.S. military units will supplement the host nation capabilities.

b. The transportation railway service is responsible for the movement and maintenance of ambulance trains. The Army Medical Service is responsible for staffing hospital cars, loading and unloading patients, and providing care en route.

c. Commanders of terminals, railheads, and supply activities are responsible for loading and unloading cars in the minimum time practicable. Railway cars are not used for storage, unless specifically authorized by the TASCOM commander.

11-22. Equipment and Facilities

a. Fixed railway facilities include bridges, tunnels, trackage, terminals, yards, stations, buildings, repair shops, and fueling and watering facilities. There are three general classes of railway equipment—motive power (locomotives), rolling stock (passenger and freight cars), and special equipment (piledrivers, cranes, and special maintenance equipment). The railway facilities make maximum use of civil railway equipment and personnel.

b. Diesel-electric locomotive repair companies and car repair companies perform general support maintenance on railway equipment and are normally located near important railway centers in the communications zone (COMMZ).

11-23. Construction and Maintenance

a. Construction and maintenance of railways in a theater of operations are the functions, respectively, of the engineer service and the transportation service, except that major rehabilitation is a responsibility of the engineer service. Responsibility for railway construction rests with the TASCOM commander in coordination with field armies for projects within

their areas. The great amount of time and the quantities of material required for new railway construction make it imperative to exploit existing railways. Reconnaissance and selection of railways to be rehabilitated are responsibilities of the transportation service in coordination with the engineer service.

b. The planning, engineering, installation, and maintenance of the military railway communications system is a function of the U.S. Army Strategic Communications Command (theater). Personnel organic to the transportation railway service operate military railway communications systems, which are constructed for their exclusive use.

Section IV. HIGHWAYS

11-24. General

a. Military highway transportation encompasses effective use of roadways and efficient operation of vehicles thereon. For details on operation of convoys and military motor transportation, see FM 55-35-1 (Test).

b. Two forms of control—organizational and area—insure the most effective and efficient use of highways to support tactical and combat service support requirements.

(1) Highways in a specific area (e.g., the COMMZ or within the field army area) are under area control. Area control is superimposed on organizational control. It is used to the degree required to achieve orderly and effective movement of vehicles over the highway system. Control exercised by higher headquarters, such as theater army, the TASCOM, or field army, may extend only to the designation of intersectional routes or as established by standing operating procedures (SOP) for coordination of combat and COMMZ highway movement. Area control is a command responsibility under the staff supervision of the assistant chief of staff (ACofS), movements.

(2) The commander of the organization using a road exercises organizational control to insure compliance with rules of the road and traffic regulations. Measures taken include prescribing schedules, speed, spacing, and routing; enforcing discipline; and local security.

11-25. Traffic Control

Staff planning and coordination of traffic control are responsibilities of the ACofS, movements, in the TASCOM and the FASCOM and of the ACofS, logistics (G4), in tactical commands. Military police units perform traffic control functions within assigned areas of responsibility in accordance with approved traffic control plans. They prepare and post temporary signs on temporary and permanent routes.

11-26. Highway Traffic Regulation

Highway regulation is a responsibility of the commander having area jurisdiction. Planning, routing, and scheduling movements on the available road net are in accordance with priorities established by the commander. Field army accomplishes highway regulation by establishing highway traffic headquarters at division, corps support brigade, and FASCOM levels. In the COMMZ, this is a function of the transportation command. Besides coordinating with the various other highway traffic headquarters, the headquarters coordinates with the TASCOM highway traffic headquarters all movements between the COMMZ and the field army.

a. *Corps Rear Area.* The support brigade highway traffic headquarters works closely with the corps staff, the support brigade staff, the MCC, the support brigade's motor trans-

port battalion, and military police units. Its main function is planning and allocating time and road-space requirements on the highway net in the support brigade area. The support brigade highway traffic headquarters coordinates with division highway traffic headquarters on all movements entering or leaving the division area over controlled routes. It also exercises direct supervision over the highway regulation point team and receives pertinent reports from military police traffic control posts.

b. Field Army Service Area. The highway traffic headquarters of the FASCOM performs essentially the same services for the field army service area that the corps highway traffic headquarters performs for the corps rear

areas. There also may be a combined MCC to coordinate intersectional movement requirements with movement capabilities of joint commands, allied forces, and the host nation. The FASCOM highway traffic headquarters coordinates with and influences the operation of both higher and lower command elements.

c. COMMZ. In the COMMZ, regulation normally is applicable only to the main highway supply routes and certain essential feeder routes. The highway traffic headquarters of the transportation command exercises control of routes. Requests for movement over those routes go to the highway traffic headquarters through local transportation movement offices or highway regulation points.

Section VII. AIR

11-27. General

a. Air transportation operations include those in which—

(1) Aircraft are available in specific numbers at a specific time and place for a specific mission.

(2) Aircraft operate on a recurring schedule between airfields.

b. Characteristics of air transportation are high speed and relatively unlimited choice of routes within aircraft range. Aircraft can be available in forward areas in the early phase of an operation, since they can use hastily prepared landing fields and air terminals.

c. The requirement for friendly control of air routes and the susceptibility to adverse weather conditions and to air defense and other ground fire influence air transportation operations. Load capacity, range, fuel consumption, and landing facility requirements are additional limiting factors.

11-28. Intertheater and Intratheater Air Transportation

The MAC normally provides air transportation between the CONUS and theaters of operations and between theaters of operations. Tactical airlift forces, other units of the theater air force, and Army aviation units provide tactical and combat service support airlift within the theater. Civilian transportation on both

common carrier and contract basis may supplement military air transportation.

a. Requirements and Allocations, General. To insure adequate supply by air, commanders develop estimates of the types and amounts, of materiel to be delivered on a sustained basis. This action is essential for determining aircraft, air delivery equipment, and personnel requirements. Maximum benefits of supply by air can be attained only after analysis of land lines of communications, available airfields or drop zones at destination, availability of loading and unloading equipment and personnel, and the plan of operation. Supply by air should originate as far to the rear as practicable and proceed direct to the unit requiring the materiel.

b. Intertheater Requirements and Allocations. The Military Services and major joint forces submit requirements for intertheater air transportation to the theater J4 or the JMTB, when established. Requirements are evaluated and recommendations are submitted by or through the theater J4 to the theater commander. After approval by the theater commander, requirements go to the appropriate departments of the Department of Defense. After evaluation and inclusion in the overall requirements of the Department of Defense, the respective departments forward the requirements of the MAC. The MAC makes alloca-

tions to the oversea theaters through the respective departments of the Department of Defense. The theater commander suballocates intertheater air transportation to each of the Military Services and to major joint forces in the theater. Each Service or joint force suballocates inbound and outbound intertheater airlift to its components.

c. Intratheater Requirements and Allocations. Services and joint forces in the theater submit requirements for intratheater air transportation to the JMTB. The JMTB evaluates the requirements and submits recommendations to the theater commander through the theater J4. The JMTB also translates general policies and allocations of the theater commander pertaining to intratheater airlift into specific directives, to include designation of priorities, and establishes priorities by Service or by type of cargo, as required. After theater component Services and joint forces receive their airlift allocations, they deal directly with the area airlift force commander, establishing specific priorities within their allocations.

(1) *Theater army.* The theater army G4 recommends the use of air transportation in theater army. Based on requests from major theater army commands and the amount of airlift allocated to theater army, theater army makes allocations to these major commands. Because of the influence of airlift on tactical operations, the army group (when present) allocates air transportation to field armies. The theater army commander establishes priorities as required.

(2) *TASCOM.* The TASCOM transportation command, under the staff supervision of the TASCOM ACofS, movements, is responsible to the TASCOM commander for movement planning and coordination of Air Force airlift allocated to the TASCOM. Intratheater airlift allocated to the TASCOM moves cargo and personnel both in the COMMZ and from the COMMZ to the field armies. Theater army may direct that a portion of the airlift allocated to the TASCOM be used to support each field army. The TASCOM transportation command consolidates requirements for airlift in the COMMZ and requirements for airlift in support of field armies. Based on these consoli-

dated requirements, airlift capabilities, and established priorities, the transportation command prepares the air portion of the TASCOM movement plan.

(3) *Army group.* Field armies submit requirements for air transportation through army group. Requirements approved by the army group commander go to theater army. Theater army forwards allocations of air transportation to field armies through army group. Army group may adjust theater army allocations to field armies as required.

(4) *Field army.* Movement planning and coordination of intratheater airlift allocated to the field army are under the supervision of the field army G4. Allocations to field army are normally expressed as tonnage for air delivery. Within this allocation, the field army commander specifies the type of material to be delivered, the times for delivery, and destinations. Field army allocates available airlift to its subordinate elements based on previously submitted requirements. When conditions do not permit air delivery direct from the COMMZ, the TASCOM may attach appropriate specialized units to field army to provide this capability.

d. Delivery of Supplies and Equipment, General. Air supply in the theater of operations is an expeditious method and is integrated into the system at theater level. The increased mobility and dispersion of combat units make air movement not only desirable but often essential. The Army or the Air Force may provide the aircraft. Field armies, corps, and divisions provided Army aviation units should not consider these units available for integration into the theater airlift system as normal employment. Air supply may be by landing the aircraft or by dropping supplies from aircraft in flight (parachute or freedrop).

(1) Air landing is the more desirable method of delivery, since it results in the least loss and breakage of cargo, reduces handling, and makes the most efficient use of airlift cargo space. Aircraft landing areas for fixed-wing aircraft normally require some preparation, depending on the area and the type of aircraft. Little or no preparation is necessary for rotary-wing aircraft.

(2) Airdrop, although less efficient than air landing, is a highly useful method of delivery. Where evacuation is not a factor, air delivery has significant advantages. It reduces aircraft vulnerability and the need for forward landing fields. Types of airdrop are low-velocity drop, high-velocity drop, freedrop, and low-level extraction.

(a) Low-velocity drop employs one or more parachutes to retard the rate of descent. This method normally uses energy-absorbing material for delivery of heavy equipment, such as field pieces and vehicles, and for fragile items.

(b) High-velocity drop employs a small parachute or other device to orient the dropped load with minimum retardation of the rate of descent. Cushioning materials or other devices attached to the load absorb the shock of impact. This method is used for the bulk of the tonnage to be delivered by air, such as subsistence, petroleum, and ammunition.

(c) Freedrop employs no retardation devices and minimum cushioning and padding materials. It is used for fortification material, communications wire, baled clothing, and other items that will not be damaged appreciably by impact.

(d) Low-level extraction is the method of air delivery by which equipment or supplies are extracted from the cargo compartment of an aircraft flying from 2 to 10 feet above the surface. An extraction device extracts the load, retards its forward momentum, and prevents tumbling. The low altitude reduces requirements for cushioning materials and assures accuracy of load delivery.

e. Air Force Organization and Responsibilities for Delivery. JCS Pub 3 and FM 100-27 include discussions of Air Force organization and responsibilities for delivery.

11-29. Army Aviation

a. Mission. Army aviation augments the capability of the Army to conduct prompt and sustained land combat operations. Army aviation is integrated into combat, combat support, and combat service support units of the Army when the employment of Army aircraft will benefit Army operations. For details on Army

transport aviation, see FM 55-6-1 (Test), FM 55-46-1 (Test), and FM 100-27.

b. Functions. Functions performed by Army transport aviation in the combat support and combat service support roles include—

(1) Air movement of supplies, equipment, and replacement personnel and units when ground lines of communications are nonexistent or inadequate, when aircraft are operated on a recurring schedule between airfields, or when the concept of operations requires speed and mobility not obtainable by ground means.

(2) Evacuation of casualties in augmentation of aeromedical evacuation performed by Army Medical Service air ambulance elements.

c. Command and Staff Relationships. See FM 1-100, FM 55-46-1 (Test), and FM 57-35

11-30. Emergency Supply by Air

a. Requests. Requests for emergency supply by air are a staff responsibility of the logistics officer. Submission of such requests is through channels by the fastest communications available consistent with security. Division normally submits requests direct to field army, with an information copy to corps. Corps takes no action on the requests unless it recommends disapproval. The requesting unit recommends the type of aircraft and the method of delivery.

b. Delivery. Normally, any echelon of command receiving the request and having both the delivery means and the supplies available provides delivery. When it receives requests, field army decides whether to deliver the supplies by FASCOM aircraft or by area airlift capacity allocated to field army or to request the TASCOT to arrange air delivery. Parachute rigger personnel, who are located near the air terminal or supply depots, prepare supplies for delivery by parachute or freedrop. An airdrop supply company, normally assigned to the FASCOM, performs these operations. The unit to whose area an emergency flight is dispatched is responsible for selecting, preparing, and marking the landing area and for aiding in landing and unloading the aircraft. This unit also recommends approaches and exits and undertakes security measures at the landing

area. Units receiving free-fall or parachute-delivered supplies are responsible for recovery of

supplies, parachutes, containers, and associated materials that can be reused or salvaged.

Section VIII. TRANSPORTATION FOR STABILITY OPERATIONS

11-31. General

Stability operations require a reliable transportation system that is responsive to the requirements of tactics and logistics. The system must be capable of operating over varied and difficult terrain and of using various modes of transportation, including means not normally organic to units. How movements are accomplished and which modes of transportation are used will depend on the situation. Hostile action, whether imminent or merely anticipated, will govern the planning and execution of transportation operations. The availability of transportation modes will govern the selection of equipment to accomplish the moves. Characteristically, there are numerous requirements for transportation support of such nonmilitary activities as civic action, refugee movement, and relief supply. Control of transportation should pass to the appropriate commander during operations and revert to the parent unit on completion of the mission.

11-32. Problems

Special transportation problems in insurgent areas result from abnormal distances, difficult terrain, lack of signal communications, and the probability that movements will be subject to attack, harassment, and delay.

a. When minimum-essential items required to support unit operations cannot be man-packed by soldiers or carried by organic vehicles because of terrain conditions, other modes of transportation carry these items (bicycles; porters; pack animals; rafts, sampans, and other watercraft; and aircraft). Such modes of transportation should be planned far in advance, and SOP's and control organizations should be developed to supervise their use.

b. Modes of transportation must not be restricted to those that are the most convenient; to do so may be detrimental to the overall mission. Use of surface transportation may deny

insurgents access to areas that would afford them advantages. The use of surface transportation also enables friendly forces to gain intelligence information, to expand or retain control of areas, to gain access to remote areas, to establish emergency routes, to gain flexibility in movements, and to provide a show of force to both insurgents and the friendly populace.

11-33. Security

All modes of transportation are subject to ambush, attack, sabotage, capture, and destruction. It must be assumed that insurgent intelligence is adequate to advise insurgent forces on what is going where. Efforts must be made to keep knowledge of the "when" and the "who" limited to key personnel.

a. In transporting cargo during stability operations, a special consideration is the type of cargo to be transported. Certain items of great value to insurgents will require greater security. This may require the use of priority (air) transportation to lessen the possibility of capture or destruction. Some cargo may require special handling and possibly a particular mode to suit its characteristics.

b. Because of their speed, relative security from ground attack, lack of sensitivity to terrain conditions, and adaptability to small unit movement, aircraft frequently will be the most effective means of supply or troop movement. Both Army aviation and aviation of other Military Services are used. Terrain, the tactical situation, and availability of airstrips will normally require resupply by airdrop as well as by air landing.

c. En route security will be provided for surface movements. Appropriate measures include intensive training of drivers; armoring and arming of vehicles involved; and use of armed escorts, including armed helicopter escorts.



CHAPTER 12

LOGISTICS—OTHER SERVICES

Section I. CONSTRUCTION

12-1. General

a. Construction is the building or repair of facilities for military forces in theaters of operations. It includes the fabrication, repair, and rehabilitation of structures, utilities, roads, pipelines, railroads, bridges, airbases, air terminals, marine terminals, defensive works, and protective works.

b. Construction is a major contributor to the mobility of field armies. The ability to concentrate construction means rapidly to overcome obstacles created either by nature or by enemy action, permitting armed forces to move faster on the battlefield, thus increasing their mobility.

c. The nature of the conflict and the operational environment have a direct influence on military operations and are major factors in shaping theater construction policies. The concepts of increased mobility and dispersion of forces and installations in a nuclear war also directly influence the type and scale of construction work in the theater of operations. Some of the tactical and combat service support demands imposed on construction support are—

(1) Construction of protective shelters for critical installations, personnel, and supplies.

(2) Camouflage of critical installations.

(3) Construction of air defense installations for essential areas.

(4) Construction of theater-controlled dummy and decoy air defense positions.

(5) Construction of main supply routes.

(6) Construction of secondary and access roads serving dispersed installations and facilities.

(7) Construction of beach and air lines-of-communication facilities.

(8) Construction support of the U.S. Air Force.

12-2. Construction Policies

a. In an active theater, the only authorization is for minimum-essential construction work and development of installations and facilities. The use of permanent-type materials (e.g., brick, tile, stucco, and concrete) is authorized only when—

(1) An agreement exists with the government of the host country to provide such construction, and then only after prior approval of the Department of the Army.

(2) Materials normally used in minimum-essential construction are not available or will not be available in time to meet construction schedules, and permanent-type construction materials are available or can be available in time to meet construction schedules at no increase in total construction cost. (When permanent-type construction materials are used, the interior and exterior finishes of structures must be in keeping with minimum-essential construction standards.)

b. Standard facilities for such installations as hospitals, depots, and shelters are designed for use in active theaters of operations. Standard facilities present the simplest method of using standard materials to construct acceptable installations, reduce the variety of construction materials required, simplify supply procedures, and reduce costs.

c. Construction priorities, compatible with instructions from higher echelons, are assigned at each command echelon. These priorities

vary with the strategic or the tactical situation, the climatic and geographic environment, and the mission of the command.

d. Construction proceeds at maximum speed with a minimum of materials, equipment, and skilled labor.

e. Construction engineers make maximum use of the designs of installations and facilities contained in the technical manuals that pertain to the Engineer Functional Components System. These manuals provide necessary drawings, plans, and bills of material for the majority of the common and repetitive construction tasks encountered in an active theater of operations. They are appropriately coded for use with automatic data processing systems and advanced supply procedures. Use of these manuals assists in construction planning, programming, and review, as well as in procurement, distribution, and control of construction material.

f. New design, when necessary, is simple and is adaptable to multipurpose use and future expansion.

g. JCS Pub 3 defines and discusses protective construction. Protective construction is applicable only to those facilities where continuity of activity is of sufficient priority to warrant protection.

h. Paragraph 1-5 discusses construction for nuclear, biological, and chemical (NBC) operations.

12-3. Responsibilities

a. The theater commander establishes broad plans and policies for construction based on coordinated planning by construction representatives of theater army, navy, and air force.

b. Based on recommendations of the theater army engineer, the theater army commander establishes construction policies, standards, and priorities in accordance with base development plans, issues construction directives, and allocates construction troops and materials to subordinate echelons. Bases for allocations are current plans; availability of construction supplies, labor, and construction capability; and approved priorities.

c. The theater army engineer supervises the

execution of theater army construction directives, coordinates with the theater army G4, and provides broad planning guidance.

d. The theater army support command (TASCOM) commander is responsible for Army construction, including planning, throughout the communications zone (COMMZ). He also supervises those construction forces assigned to theater army that are not further assigned to collateral commands. In addition, he may be responsible for construction support of theater navy and air force elements and allied forces, as directed. He discharges his construction responsibility through the engineer command. The TASCOM commander uses the construction means available to him in accordance with the plans, policies, standards, and priorities established by the theater army commander. He performs major field army construction and interzonal requirements common to both the field army and the TASCOM by sending construction units into the combat zone to accomplish specific projects.

e. The field army commander is responsible for construction in the field army area, except for those interzonal projects common to both the combat zone and the COMMZ, but lacks the means for more than expedient-type construction. The field army commander can perform required construction with units of the engineer combat brigades assigned to corps and field army; however, this detracts from these units' primary combat support roles. Construction in the field army area is normally of a temporary nature. The TASCOM may attach or place in direct support of a field army TASCOM construction units to perform complex construction tasks or to initiate advanced construction of COMMZ-type facilities.

12-4. Construction Support in Stability Operations

Developing countries in which stability operations may be conducted frequently require much light construction. Demolition and sabotage operations by insurgent forces may aggravate the situation.

a. Construction support may include provision of combat bases, security posts and their

defenses, and communications facilities; an adequate ground transportation system; extensive airstrips, airfields, and helicopter pads to support aviation of both the Army and other Military Services; essential construction of resettlement areas; and support to the local population in military civic action projects.

Section II. LABOR

12-5. General

a. Scope. The labor function of combat service support includes the use of personnel resources in theaters of operations to further the military effort. It is concerned with the procurement, management, and use of labor available from—

- (1) U.S. and allied military service units.
- (2) Prisoners of war and civilian internees.
- (3) U.S., allied, neutral, and enemy civilians, including refugees, evacuees, and displaced persons. JCS Pub 3 contains the basic policies on the subject.
- (4) U.S. military prisoners.

b. Planning. To release as many military personnel as possible for combat duties, planning calls for maximum use of all sources of noncombatant personnel (*a* above), consistent with operational and security requirements, essential civilian needs, and international laws and agreements to which the United States is a party. Planning for operations in any geographic area must include an estimate of available manpower and its capabilities in relation to requirements. Planning must also provide for the procurement, use, and administration of this manpower in support of the combat forces. Army Civilian Personnel Regulation (CPR) M100 contains guidance for planning the use and administration of U.S. civilian personnel under emergency conditions. DA Pam 690-80 contains provisions of treaties pertaining to the employment of foreign labor and further planning guidance.

c. Impact of NBC Operations. Theater employment of mass-casualty and mass-destruction weapons will complicate the maintenance of a civilian work force in probable target areas, such as troop concentrations and critical

b. The scope of the construction effort requires maximum use of local labor and materials. Additionally, combat units will have to participate to a greater degree than is normal in construction of facilities for their own use.

combat service support installations (para 1-5).

d. Geneva Conventions. The United States is a party to the Geneva Conventions of 1949 relative to the treatment of prisoners of war and the protection of civilians during hostilities. FM 27-10, DA Pam 27-1, and DA Pam 690-80 contain pertinent provisions of these treaties.

e. Information Program. Because the labor force may represent a sizable portion of the local populace, control of the people may become difficult under certain conditions. Upon the formation of the labor force, the initiation of an information program may lessen the panic and disorganization resulting from a catastrophic condition.

12-6. Sources of Labor and Types of Units

a. Civilian Employees. A general policy of the Department of Defense is that civilian personnel are used in all positions that do not require military skills or military incumbents for reasons of training, security, or discipline. Overseas areas make maximum use of the services of nationals of the country and other locally available civilians. U.S. civilians and third state nationals (AR 320-5) are imported into such areas only to the extent necessary to the security of the forces or when required skills are unobtainable from local sources. Although mobile labor may be required for emergency support of certain critical activities, local civilian residents meet on-site requirements insofar as practicable. Paragraphs 13-12 and 13-13 discuss methods of employment and administration of civilian personnel, both U.S. citizens and foreign nationals, in support of Army operations under various conditions.

b. Contractual Services. Engagement of a

resident contractor to provide the service or product desired can reduce, in part, the need for direct hire and supervision of labor. Contractual agreements include logistic support, if any, provided the contractor or his personnel. In contract negotiations, care is necessary to insure that employment conditions are in accordance with applicable local laws and regulations and that wage scales paid by the contractor are in agreement with those applicable to direct hire labor.

c. Type B Units. Type B units are tables of organization and equipment (TOE) service organizations that integrate U.S. and non-U.S. personnel into a work force. Such units contain the necessary equipment and a qualified military cadre. To the extent permitted by international law and agreements, civilian personnel fill noncritical spaces in the organization. U.S. Forces normally provide these civilians logistic support in accordance with theater or theater army directives.

d. Prisoners of War. Chapter 19 contains the basic policies and procedures for the use and administration of prisoner-of-war labor. To obtain maximum use of prisoners, work assignments should be in accordance with their training and skills. Proper classification of specialists and provision of necessary equipment and administration will assist in the use of prisoner-of-war labor.

e. Labor Pools. Analysis of the labor needs of each installation determines the amount of permanent labor necessary and the amount that a general labor pool can furnish to meet fluctuating demands. Combat troops work as laborers only as a last resort.

12-7. Responsibilities

Paragraphs 13-4 through 13-8 and 13-12 through 13-14; FM 101-5; and CPR's discuss staff responsibilities for manpower management and general labor activities. Chapter 5 and FM 41-10 define civil affairs responsibilities.

12-8. Labor Support in Stability Operations

The movement, maintenance, and storage of supplies require a large labor force. The initial need for local skilled labor is particularly severe in stability operations because of the requirement to establish a combat service sup-

port base and the need to build up storage sites, airfields, depots, and transportation facilities.

a. Availability of Local Labor. Usually, there is an adequate amount of labor in underdeveloped areas. There also is generally large-scale unemployment or underemployment, and the economy of the area can afford the siphoning of a portion of its manpower.

b. Inhibiting Factors. Although large reserves of labor exist in underdeveloped areas, certain factors inhibit the availability of this labor.

(1) *Health and sanitation.* Existing health and sanitation conditions may reduce the size of the physically fit labor force and increase the number of persons needed to accomplish specific tasks.

(2) *Labor force mobility.* The labor force in these areas may not be mobile. Laborers may have close village and ancestral home ties that they will be reluctant to sever.

(3) *Location.* Most of the readily available labor is in and around the cities and towns.

(4) *Politicomilitary situation.* The availability of local labor will depend on such factors as the nearness of military operations to the cities; local reaction to the insurgent threat and fear of reprisals; attitude of the local population toward the government, the United States, and U.S. Forces; and the degree of authority exercised by the local government.

c. Use of Local Labor. Besides limitations on availability of local labor, there also may be limitations on use of the labor. The people may have a high aptitude for learning and, once taught, an ability to operate complex modern machinery and equipment; however, time available will make it impossible, in many cases, to undertake the necessary training. This is especially significant when there is a language problem. Logistic tasks in which local labor can be used effectively include unloading operations, transportation of supplies and equipment from unloading sites to supply points and dumps, transportation of pack loads over difficult terrain, construction tasks, crating and uncrating supplies, other general labor tasks at depots and supply points, and evacuation of casualties by litter.

Section III. MISCELLANEOUS SERVICES

12-9. NBC Service

Services provided Army troops and other forces in connection with enemy NBC operations are in accordance with the following principles:

a. NBC decontamination is the responsibility of each individual and unit. FM 21-40, FM 21-41, and TM 3-220 outline the procedures for performing NBC decontamination. Decontamination of vast quantities of supplies and equipment, large areas, and extensive installations with decontaminating equipment and material normally is not feasible from a logistic standpoint. Under these circumstances, decontamination through weathering and decay is practical. The using unit performs organizational decontamination of equipment, supplies, and critical areas as required for essential operations. In the field army, decontamination platoons of the field service general support company, forward, and the field service general support company, army, perform decontamination of critical equipment and supplies and vital installations and areas beyond the capability of using units. In the COMMZ, decontamination teams attached to the supply and service company, area support group, area support command (ASCOM), perform decontamination. Engineer and other units equipped with bulldozers and other types of earthmoving equipment also perform vital area decontamination. Large-scale decontamination, however, is expensive in terms of manpower and logistic effort; it is not normally undertaken unless the area affected is of critical importance or the installation involved cannot be moved. Mobile laundry units of field service general support companies, forward and army, provide a limited capability for decontamination of clothing.

b. Mobile laundry elements of field service general support companies, forward and army, perform impregnation and reimpregnation of clothing.

c. Construction of improvised NBC protective shelters is a responsibility of each unit commander, as outlined in FM 21-40 and TM 5-311. Engineer units construct permanent and semipermanent shelters and install collective protectors provided by supply units.

d. The general chemical laboratory provides NBC laboratory services for the theater. Identification of chemical agents and radiological isotopes and the laboratory analysis of NBC materiel in support of the theater intelligence mission are the primary areas of interest. Identification of biological agents is a function of the medical laboratory. Within priorities established by the theater commander, the general chemical laboratory provides laboratory development of field expedient NBC devices and measures in support of the theater operational mission. The laboratory also provides analysis of chemicals and other items procured or stored in the theater in support of the theater supply mission.

12-10. Real Estate

Procurement of real estate in a theater of operations is in accordance with the laws of land warfare and with Department of Defense directives, as announced in policies by the theater commander. In allied or friendly countries, international agreements or agreements between the theater commander and the country concerned may have provisions for procurement of real estate. The director of installations, area support group, and the assistant chief of staff (ACofS), services, support brigade, are responsible for the acquisition and disposition of real estate. The logistics officer has general staff responsibility for coordination among using Services. Important factors to be considered in connection with real estate activities are as follows:

a. Requirements and allocations of areas and facilities must be planned well in advance.

b. A combat service support organization must be provided for handling real estate acquisition, inventories, contracts, payments, claims, and accounting.

c. An area real estate allocation board, composed of representatives of the several commands concerned working with civil affairs personnel, may be established to coordinate real estate requisitions.

d. Commanders concerned are responsible for the selection of real estate sites under policies announced by higher headquarters. The

engineer acts only as staff advisor, requisitioning agent, and office of record in carrying out command and theater policies.

12-11. Quarters

Quarters is the provision and administration of shelter for a command, including its personnel, headquarters, establishments, and supplies.

a. Shelter may take the form of bivouac, improvised cover, or shelter tents; camps, where troops are under heavy tentage; cantonment, where troops are in temporary structures; and billets, where private or public buildings are occupied. In hostile territory, billeting is as authorized by the theater commander. Governing factors in the type of shelter provided and the location of quarters include the mission of the unit, policies of the theater commander, availability of areas and shelter, dispersion, security, sanitation, training and other facilities, and comfort of the troops. For tactical considerations, see FM 100-5. Requisites for quarters areas include adequate routes of communications to and within the area; protection against the elements; adequate supply of water; good natural drainage; firm, dry soil; and freedom from sources of disease.

b. Administration of shelter is the responsibility of the commander having territorial jurisdiction in the area. Administration includes allotment of quarters areas and existing facilities to using commands, establishment of regulations governing the use of quarters areas and facilities, and provision of facilities and utilities.

c. The operations officer exercises general staff supervision over selection of areas for quarters. The logistics officer supervises the administration and allocation of quarters except that pertaining to headquarters personnel, which is a function of the personnel officer. The engineer handles real estate matters as indicated in paragraph 12-10d.

12-12. Firefighting

a. Firefighting and fire prevention are the responsibility of all commanders. The director of installations, area support group, and the ACofS, services, support brigade, provide technical advice and supervision of engineer fire-

fighting units. These units are available only at centers of military activity, such as large hospitals, depots, petroleum terminals, and tank farms. In other areas, troop units fight fires, supplemented by civilian firefighters, when available. Firefighting equipment is organic to units engaged in hazardous duties, such as ordnance ammunition units and Army aviation units. Avoiding fire loss and damage requires frequent inspection, careful planning of new construction, and fire prevention discipline. The commander of each installation prescribes fire drills for all units and standing operating procedures for a fire alert.

b. In the development of passive air defense and area damage control plans and procedures, the engineer is responsible for submitting recommendations for firefighting and control of conflagrations, as well as submitting fire control training programs and the technical supervision of such training.

12-13. Utilities

The director of installations, area support group, and the ACofS, services, support brigade, are responsible for the operation and maintenance of engineer utilities. TOE's provide engineer utilities teams, and local civilians are employed whenever practicable.

12-14. Camouflage

Camouflage discipline is a responsibility of every commander. Each unit performs camouflage operations. The engineer is responsible for technical advice and supervision of engineer camouflage units. Proper use of existing terrain features and employment of local natural materials produce more effective results than the use of extensive artificial camouflage (FM 5-20).

12-15. Explosive Ordnance Disposal Service

Explosive ordnance disposal service is designed to detect, report, render safe, recover, evacuate, and dispose of unexploded U.S. and foreign explosive ordnance; including nuclear, chemical, and biological weapons which have been fired, dropped, or placed in such a manner as to constitute a hazard to installation, per-

sonnel, materiel or operations, EOD service also includes disposal of explosive items for

local authorities. See FM 31-45 for detailed information.

Section IV. SERVICE ORGANIZATIONS

12-16. Combat Divisions

FM 54-2 and FM 61-100 discuss service elements of the division.

12-17. Corps

FM 29-3-1 (Test), FM 29-45-1 (Test), and FM 54-4 contain detailed information concerning the provision of services to the corps.

12-18. Field Army

FM 29-3-1 (Test), FM 29-45-1 (Test), FM 54-3, and FM 54-4 contain detailed information on service elements and service support operations in the field army.

12-19. Cellular Team Units

A cellular team unit is a unit composed of separate teams (TOE cells), each of which includes personnel and equipment for the performance of a specific function. One or more teams may form a military unit to meet a special requirement not currently provided for in fixed TOE. Teams may augment units organized under fixed TOE when increments of less than company size are required. Appropriate service TOE and field manuals contain details on organization and employment of cellular units.

12-20. Station Services

Station services are housekeeping and administrative activities required to maintain and operate the physical facilities of an installation and to provide supplies and services for assigned and attached personnel. Some or all of the installation services may be organized into composite units subordinate to the area support groups in the ASCOM. The various types of services involved are under the staff supervision of the director of installations and the director of services of the area support group headquarters.

12-21. Pooling of Services

A pool combines the resources of several organizations under central control for common use. Pools may be formed for vehicles; materials-handling equipment; labor; or special types of services, such as construction or maintenance. Pooling of personnel and equipment has the advantage of providing the means for more efficient distribution of the workload and flexibility in meeting peak demands. Disadvantages of pools are the lowering of morale and reduced administrative control because of the separation of troops and equipment from their parent organizations.

12-22. Vehicle Pools

When there is an urgent requirement for additional cargo transportation, some of the cargo vehicles of several units may be pooled to accomplish the task. Organizing such a pool necessarily reduces the capabilities of the unit from which vehicles are drawn. The principle of pooling vehicles is not limited to any branch or any type of transportation. All vehicles of any unit are a source of transportation *except* Geneva Convention-protected vehicles; motor vehicles issued to move weapons; motor maintenance vehicles; and command, communication and fire direction vehicles. Transportation truck units form the nucleus of vehicle pools. Truck companies may operate independently, be attached to such installations as depots, be placed under the control of battalion or group headquarters, or operate under the transportation officer. With the exception of specialized vehicles (e.g., ordnance shop trucks, signal and engineer vehicles, ambulances and other special medical service vehicles, ammunition- and weapon-carrying vehicles), loads of cargo vehicles may be dumped and these vehicles pooled and made available for emergency use.



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PART THREE

PERSONNEL

CHAPTER 13

PERSONNEL—GENERAL

Section I. INTRODUCTION

13-1. General

The personnel and manpower functions of combat service support encompass personnel requirements, authorizations, and strengths; replacements; personnel services; and other personnel activities.

13-2. Staff Responsibilities

FM 101-5 discusses staff responsibilities and

activities pertaining to personnel. FM 101-10-1 contains reference data on personnel activities.

13-3. Personnel Command, Theater Army Support Command

FM 29-6 contains details on the organization and operation of the personnel command, theater army support command (TASCOM).

Section II. MANPOWER MANAGEMENT

13-4. General

Manpower management involves the planning and programming of military and civilian manpower strengths in consonance with—

- a. Manpower requirements.
- b. Strength and budgetary limitations.
- c. Criteria for procurement and allocation of manpower.
- d. Criteria for use of manpower.

13-5. Objective

The objective of manpower management is to maintain both maximum combat effectiveness within available manpower resources and the optimum ratio among combat, combat support, and combat service support forces.

13-6. Principles

- a. Manpower management seeks to insure accomplishment of assigned missions with a minimum of manpower.
- b. Continual evaluation of missions insures the most efficient use of personnel resources.

c. Manpower management continually evaluates functions and assigns priorities for allocation of available manpower resources.

d. Bases for the determination of manpower requirements are missions, functions, standards of performance for mission and function accomplishment, and workloads.

e. Commanders have maximum flexibility in use of manpower resources.

13-7. Control

Control of manpower management is through the mediums of manning documents (tables of organization and equipment (TOE) and tables of distribution and allowances (TDA) (sec II)), manpower allocation vouchers, and officer manning levels.

13-8. Troop Planning and Troop Basis

Chapter 3 discusses troop planning and troop basis.

Section III. PERSONNEL MANAGEMENT

13-9. General

a. Personnel management is the process of planning, organizing, coordinating, directing, and controlling military and civilian personnel to obtain the maximum efficient use of manpower. Some of the personnel management activities are classification, assignment, promotion, separation, enlistment, and appointment.

b. FM 101-5 discusses the responsibilities of the personnel officer relative to personnel management.

13-10. Classification

a. Personnel classification and position classification are means of systematically assigning personnel to positions for which they are qualified.

b. Personnel classification is the process of identifying, recording, and evaluating, on a continuing basis, the individual's mental and physical abilities, occupational qualifications, occupational record, interests, education, and military experience to enable assignment to positions best benefiting the Army.

c. Position classification is the process of identifying, codifying, and describing job content and qualification requirements of duty positions. The military occupational specialty (MOS) is the primary tool in position classification. The basis for MOS job content is job analysis. The MOS structure provides a standard description of Army jobs.

13-11. Assignment

a. Assignment is the procedure by which an individual is placed in an organization and given a specific military duty. Personnel classification and position classification are the normal bases for assignment. However, needs of the Service are the primary consideration and the final determining factor in assignment of personnel.

b. Assignment is part of personnel management and is directly related to the following Army personnel management principles:

(1) Balance the best interests of the individual with the best interests of the Army.

(2) Increase the individual's ability to perform through training.

(3) Use the individual on essential tasks.

(4) Stimulate the individual's desire to perform.

(5) Assure the individual of professional development.

c. Assignment objectives are—

(1) Equitable distribution of personnel according to mental qualifications.

(2) Equitable distribution of physical capabilities.

(3) Equitable distribution of skills.

(4) Assignment according to interest and aptitude.

Section IV. CIVILIAN PERSONNEL

13-12. General

AR 10-5 defines authority for civilian personnel management. Delegation of this authority is through command channels to the lowest practicable operating level.

a. *U.S. Citizens.* Employment conditions of U.S. civilians are in accordance with U.S. statutes, Executive orders, and U.S. Civil Service Commission regulations implemented by Department of the Army civilian personnel regulations (CPR).

b. *Non-U.S. Citizens in Foreign Areas.* Employment conditions of local civilians used by U.S. Forces in foreign areas must be in compli-

ance with international law, treaties, and agreements and with applicable U.S. and local laws, to the extent that treaties and agreements do not provide otherwise. U.S. supervisory personnel should be familiar with the customs, work habits, and language of local personnel. The provisions of an agreement with the host government normally govern the conditions of employment of non-U.S. citizens in friendly countries. These employment conditions are in accordance with local law and practice to the extent compatible with the basic management needs of the forces. The Department of Defense prescribes broad policies,

which are transmitted to the theater commander by the appropriate agency of the Department responsible for the combat service support of the theater headquarters. A detailed statement of the important points of policy is in DOD Instruction 1400.10 published in Army CPR A2 and in DA Pam 690-80.

13-13. Administration Under Peacetime Conditions

Under peacetime conditions, both in the United States and in foreign areas, area or installation civilian personnel offices conduct administration of civilian personnel, both U.S. citizens and non-U.S. citizens. Civilian personnel officers supervise the civilian personnel program under general staff supervision of the assistant chief of staff, personnel (G1) (FM 101-5).

13-14. Administration Under Emergency Conditions

Army CPR M100 contains the basic policies and procedures for the utilization and administration of U.S. citizens under emergency conditions. DA Pam 690-80 provides guidelines for the administration of non-U.S. citizens during hostilities.

a. U.S. Citizens. In the United States, installation civilian personnel officers conduct civilian personnel administration. In oversea areas, personnel staff officers have this responsibility.

b. Non-U.S. Citizens in Foreign Areas.

(1) Responsibilities.

(a) Area commanders. The field army commander in the combat zone and the TASCOM commander in the communications zone (or other designated commanders exercising area responsibility) implement policies of the theater, theater army, or task force commander concerning the procurement and administration of local civilian personnel.

(b) Commanders of using units. Commanders of all units authorized to use local civilian personnel appoint appropriate officers to administer these personnel. In the absence of other arrangements for making payments, these officers are class A agents for handling civilian payrolls.

(c) Funds. Finance disbursing officers

furnish class A agent officers the necessary local funds.

(2) Methods of employment. The commander having general area responsibility determines the method of employment of non-U.S. local civilian personnel. He bases his determination on—

(a) Needs of the forces and circumstances in the area.

(b) Existing agreements, including civil affairs.

(c) U.S. foreign policy considerations.

(d) Capabilities of the local government.

(e) Appropriateness of local employment practices.

(3) Utilization of employees. Non-U.S. civilian personnel may be—

(a) Direct hire employees of the U.S. Government.

(b) Personnel employed by a friendly government and furnished to the U.S. Forces on a reimbursable basis.

(c) Personnel employed by local government agencies in an occupied enemy or former enemy area and requisitioned from these agencies.

(d) Personnel employed by contractors furnishing goods or services to U.S. Forces under contractual agreement.

(4) Administration and conditions of employment.

(a) Each unit using civilian labor may administer the personnel through an officer designated by the unit commander. Temporarily employed personnel should receive a standard hourly pay rate regardless of type of work performed or skill required. Personnel in supervisory positions should receive an additional pay increment.

(b) When conditions permit, administration of civilian personnel may be transferred to civilian personnel officers deployed under an area headquarters operating in conjunction with civil affairs units in the area. The area headquarters will maintain or re-establish standardized hours of work, tours of duty, allowances, differentials, premium pay for overtime, and other essential program elements.

(c) Where conditions require the use of civilian labor able to move from place to place as needed, such personnel may be formed into organized units and administered under regulations approved by the theater, theater army, or task force commander. Mobile labor units must not, however, be organized as quasi-military units if they contain any persons protected by Article 51: Geneva Conventions of 1949 (FM 27-10).

(d) The conditions of employment for non-U.S. civilians brought into the area across international boundaries for employment by U.S. Forces must be in accordance with international law and prior agreements with the friendly governments concerned. All non-U.S. nationals residing in the area, as well as refugees and stateless persons, work under the same conditions as local nationals, unless applicable legislation or international agreements provide otherwise.

(e) Payment to direct hire civilian labor may be by one of two methods, depending on the form of agreements between the U.S. and the host government.

1. *Direct payment.* Using units appoint a class A agent officer to pay each individual worker on the basis of payrolls prepared by the using unit and in accordance with applicable wage rates prescribed for the area of employment.

2. *Indirect payment.* Using units prepare and furnish to the appropriate civil affairs unit, through the area labor office, a certified payroll showing the individuals employed, the hours worked, and the job classification of the individual. The host country, or a subordinate government agency of the host country,

pays the individual. Reimbursement, if required by agreements, will be preferably at the government level.

(5) *Logistic support.* Local civilian personnel who live in their own homes and report daily to an established worksite (static labor), as well as mobile labor, receive the necessary logistic support for their protection and for accomplishment of the labor mission (DA Pam 690-80).

(a) Static labor receives emergency medical treatment and, when authorized by the commander exercising area responsibility, may receive one meal (one-third ration) per day. Rations for civilian labor are from captured enemy stocks, locally procured supplies, or modified U.S. Army rations, in that order of priority.

(b) The commander exercising area responsibility may authorize additional support (i.e., protective masks and class X clothing) for both static and mobile labor.

(c) The headquarters exercising area responsibility may prescribe the extent to which the cost of logistic support will be deducted from the pay of workers or furnished without charge, consistent with operating needs, prevailing labor practices, and civil affairs considerations in the area. Before issuance of such instructions, cost of individual rations is normally deducted from the pay of workers in an amount for each meal (one-third ration) not exceeding the normal cost of a comparable meal in the civilian economy.

(6) *Security screening.* Units using local non-U.S. civilian personnel normally coordinate with local Army intelligence units for the screening of these personnel.

Section V. SAFETY MANAGEMENT

13-15. Objective

The objective of safety management is to conserve personnel and hardware from accidental loss so that maximum resources contribute to mission accomplishment. The integration of safe practices and standards into all activities is a continuing process.

13-16. Command Responsibility

The responsibility for effectiveness of safety management rests with the commander at each level. While safety requirements may require modification, safe practices and principles applied in training will lessen the probability of unnecessary losses of materiel and manpower.

during combat operations. Commanders must insure that directives, standing operating procedures, and training doctrine specify safe practices and safe physical standards and that such practices and standards are observed.

13-17. Staff Responsibility

The personnel officer has primary general staff responsibility for supervision of Army safety activities. He coordinates safety management matters with other general and special staff officers as follows:

a. Operations officer on integration of safe practices into training and operational activities.

b. Logistics officer on safety matters related to combat service support activities.

c. Provost marshal on traffic controls for safety.

d. Chaplain on moral responsibilities for safety.

e. Surgeon on occupational health, ionizing radiation, and accident trends in units and individuals.

f. Engineer on construction safety, fire prevention, and protection.

13-18. Integration

Effective integration of safety management throughout the command requires—

a. Incorporation and enforcement of safety standards and procedures in operations.

b. Corrective action to eliminate or control hazards, conditions, or practices that cause accidents.

c. Guidance at all echelons on matters pertaining to safety management.

d. Effective safety education.

e. Appropriate safety training of military and civilian personnel.

f. Adequate accident investigation and reporting.

g. Evaluation and effective use of accident data.

h. Command and staff supervision of the safety program.



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CHAPTER 14

PERSONNEL—ARMY MEDICAL SERVICE

Section I. GENERAL

14-1. Introduction

a. Medical service is continuing and interzonal. The efficiency of its operation depends on the effective distribution of patients to those medical facilities that are capable of providing the required treatment in the shortest possible time. Medical regulating officers direct the movement of patients without regard to lateral and rear boundaries of division and corps, rear boundaries of field army, and area boundaries in the communications zone (COMMZ). Normally, prior coordination is necessary to evacuate patients across the lateral boundaries of field armies.

b. The primary mission of the theater army medical service is to conserve military manpower by establishing and operating an effective system of evacuation and hospitalization, medical and surgical care and treatment, preventive medicine, and other health services in support of combat, combat support, and combat service support troops. This mission includes furnishing required supplies and equipment and operating an efficient medical equipment maintenance system.

c. A secondary mission of theater army medical service is to provide medical assistance to the indigenous civilian populace. This assistance varies according to the situation and may range from limited aid to counter disease and relieve suffering in a limited war to extensive participation in military civic action programs in a stability operation.

d. The chief surgeon of the theater prepares the general plan for medical service in the theater of operations in accordance with policies prescribed by the theater commander. Theater headquarters supervises the decentralization to major commands for execution of the plan (FM 8-17-1 (Test) and FM 54-8 (Test)).

14-2. Reference

Army Medical Service planning in a theater of operations involves use of certain statistical data and consideration of other pertinent factors developed largely from wartime experience. FM 101-10-1 defines and discusses in detail some of the more important factors involved in Army Medical Service planning.

14-3. Evacuation and Hospitalization

a. Evacuation and hospitalization of patients is part of the total integrated medical service support system. The objective is to relieve units of patients and return such personnel to duty as soon as possible.

b. Basic principles of evacuation and hospitalization are as follows:

(1) Hospitalization is as close as possible to troops requiring it.

(2) The maximum number of personnel return to duty in the combat zone.

(3) Evacuation of patients is no farther to the rear than the physical condition of the patients and the military situation permit.

(4) Rearward units are responsible for relieving forward units of their patients in accordance with the prescribed evacuation policy.

(5) All modes of medical transportation, augmented by other transportation when necessary, evacuate patients. The type of transportation selected depends on the military situation, condition of the patient, facilities available, and transportation modes available.

(6) Each medical installation in the evacuation and hospitalization system sorts and classifies patients as suitable for treatment at the installation, requiring further evacuation, or fit for return to duty.

c. Evacuation planning must anticipate transportation requirements and provide for

use of alternate transportation means. Evacuation makes maximum use of aircraft; however, susceptibility of this means to interruption by weather, enemy action, or availability of aircraft is a limiting factor in relying too heavily on air evacuation. Ground means of evacuation must be available and disposition of medical facilities must permit continuing medical service. The surgeons of supporting elements maintain close coordination. This coordination normally is through the establishment of medical regulating sections by the command surgeons concerned (FM 8-16).

d. The extent to which hospitalization is provided in theater of operations depends in large measure on the speed with which patients can return to duty status and on the reliability of evacuation from the field army and the COMMZ. The period of time elapsing between the discharge of a patient from a hospital and his return to duty is much greater when hospitalization is outside the theater of operations. To reduce this time differential, the theater army support command (TASCOM) may have a sufficient number of hospitals to permit the treatment and return to duty of a large percentage of patients within the theater. This action may require echeloning general hospitals forward in the COMMZ. If evacuation from the COMMZ is not reliable, hospital capacity must be sufficient to care for patients accumulated as the result of any interruption in the system.

e. Medical units assigned to field armies must be as mobile as the field armies they are supporting; therefore, they should not include fixed facilities. As a rule, general hospitals should be in the COMMZ because of the time required for preparation of these installations and their relative permanence. When lines of communications are extended and ground evacuation is relied on, echelonment of general hospitals may be forward as soon as practicable. The geographic groupment of general hospitals into a hospital center promotes efficiency of operation. However, adequate dispersion among hospitals making up the center avoids presenting a lucrative target to the enemy.

14-4. Medical Civic Action

a. Medical civic action is the medical service provided to civilians that contributes to the general welfare and improves the standing of the U.S. or the host country with the civilian population. Although there will be some medical civic action in all types of warfare, its greatest use and importance are in stability operations.

b. Basic principles of medical civic action are as follows:

(1) Medical civic action will not lessen the quality of medical service provided U.S. personnel.

(2) The primary purpose of medical civic action is to gain, restore, or maintain public confidence in the host government and its military forces and allies; however, such programs should not be openly identified with the psychological operations program.

(3) Medical civic action cannot solve the medical problems of a nation; rather, it is a supplement to the public health program, with which it must be coordinated.

(4) Medical civic action programs should extend host government public or private health facilities in remote or unsafe areas, but should not duplicate or otherwise compete with established health services.

(5) Maximum emphasis is on solving simple medical problems benefiting the maximum number of people rather than trying to treat the major problems of a few persons. Referral of patients requiring long-term treatment to the civilian public health service or a civilian hospital is a normal function of medical civic action.

(6) Instruction in personnel hygiene and sanitation achieves maximum long-term benefits.

(7) Civilians who are injured as a result of military operations receive priority treatment.

(8) Coordination for medical civic action is with the assistant chief of staff (ACofS), operations (G3), and with the ACofS, civil affairs (G5), to focus the effort where needed

and to insure compatibility with military operations.

(9) In stability operations, host country medical personnel participate in medical civic action to the maximum extent possible.

14-5. Organization

Medical service in the theater of operations is functional, integrated across the front and in depth and organized into four typical levels. These levels of medical service are unit, division, field army, and COMMZ. Medical organizations providing unit, division, and field army medical service essentially support tactical units and, therefore, are more mobile than medical organizations in the COMMZ. Each successive level of medical service performs area medical service for adjacent units. Area medical service includes all phases of medical service up to and including that peculiar to the level of the supporting unit.

14-6. Responsibilities

Commanders at all echelons are responsible for providing adequate and proper medical care for troops of their command and other specified personnel. U.S. military doctrine requires that the commander weigh his medical requirements with the same degree of care that he uses in evaluating ammunition, food, gasoline, and other support requirements. Surgeons at each echelon, down to and including battalion (except those battalions receiving area medical support from division or other medical service units), advise and assist the commander in the discharge of his medical service responsibilities. Commanders at all echelons also are responsible for observing and enforcing the provisions of those treaties, conventions, and customs of war that are binding on U.S. Forces with respect to medical treatment for prisoners of war, civilian internees, friendly and enemy nationals, and neutrals.

Section II. COMBAT ZONE

14-7. Division

a. Unit medical service in the division is provided by medical elements organic to battalion or larger size units of the arms and services, except for the signal battalion and elements of the division support command (DISCOM).

b. The division surgeon is a special staff officer. He assists the commander and staff in planning and coordinating and exercises staff supervision and technical control of division medical activities.

c. The division medical battalion (a DISCOM element) provides division medical support on an area basis. This support includes operation of division clearing stations, ambulance evacuation of patients to division clearing stations, medical supply, maintenance of medical equipment, and expedient dental treatment.

d. FM 8-15 and FM 54-2 contain details on division medical service.

14-8. Corps

a. The medical section of the corps headquarters includes the corps surgeon and his staff. The surgeon advises the commander and staff on medical matters affecting combat and combat support. He coordinates the medical

support of corps operations with units of the field army support command (FASCOM) medical brigade. When a corps operates as an independent force, it assumes combat service support functions. A corps support command (COSCOM), organized and structured in accordance with the mission, performs these functions. Normally, a medical group attached to the COSCOM is the operating medical command of the independent corps.

b. FM 8-16 contains details on corps medical service.

14-9. Field Army

a. The FASCOM medical brigade provides field army medical service. Service is primarily on an area basis. The brigade also furnishes backup medical support to the division medical battalions. FM 8-16 contains details on the medical brigade.

b. The medical brigade furnishes mobile army surgical hospitals, evacuation hospitals, and a convalescent center. These facilities are near supported troops and are accessible to normal means of transportation; however, when possible, they are situated away from potential target areas.

(1) Mobile army surgical hospitals provide prompt, highly skilled surgical care for patients in the combat zone who, because of their condition, cannot withstand further evacuation. Surgical hospitals are normally in the division support area near the clearing stations.

(2) Evacuation hospitals provide hospitalization for all types of patients in the combat zone and prepare patients for further evacuation as necessary. Evacuation hospitals are approximately 50 percent mobile.

(3) The convalescent center provides the field army facilities for the convalescent care, physical reconditioning, and rehabilitation of patients. Its purpose is to hold patients in the field army area when they are expected to return to duty in a comparatively short time. The center provides dispensary-type medical service for patients. In a mass-casualty situation, this unit can provide emergency care and hospitalization when augmented.

c. Responsibility for medical evacuation is from the rear. Field army medical units normally evacuate patients to evacuation hospitals from division clearing stations and mobile army surgical hospitals. Both air and ground evacuation units perform this evacuation.

d. Medical collecting companies provide litter bearer support for combat units.

e. Cellular teams of TOE 8-500 may augment medical units in the field army. These teams are attached or assigned to fixed-strength units or may be organized into service units to provide medical service under varying conditions.

f. The threat of nuclear, biological, and chemical (NBC) operations increases the requirement for dispersion of units. This environment also requires increased medical evacuation speed, flexibility, and mobility. Increased use of aeromedical evacuation (using organic means in the combat zone) for routine as well as critically injured patients is necessary to provide the required services.

g. Aeromedical evacuation involves both the Army and the Air Force.

(1) *Army functions.* Army functions include—

(a) Aeromedical evacuation in the combat zone, to include battlefield pickup of pa-

tients (except those from an airhead where airborne operations include air-landed logistic support by the Air Force).

(b) Air transportation to the initial point of treatment.

(c) Subsequent movement of patients to hospitals in the combat zone.

(2) *Air Force functions.* Air Force functions include—

(a) Evacuation of patients from the combat zone to rear area treatment facilities through Air Force casualty staging facilities.

(b) Aeromedical evacuation of patients to the CONUS through Air Force casualty staging units of the Military Airlift Command (MAC).

(3) *Army aeromedical evacuation.*

(a) Air ambulance units of the medical brigade perform aeromedical evacuation of patients. These air ambulance units are capable of unit administration and maintenance, to include organizational maintenance of aircraft. The aircraft maintenance company (direct support) of the direct support maintenance battalion provides maintenance other than organizational. Air ambulance units maintain sufficient medical supplies and equipment to enable continuation of adequate medical treatment in flight and to accomplish property exchange as required. For purposes of economy and flexibility in operations, air ambulance units may be attached to other medical command and treatment elements for logistic support. These units may also be attached to nonmedical units at echelons where such means are not continually required. Air ambulance units may operate from a location in the area of a supported unit while performing aeromedical evacuation in direct support of that unit.

(b) In addition to air ambulance units, nonmedical aviation units have the capability of augmenting the aeromedical evacuation means with their organic aircraft, particularly to meet emergency patient requirements and to move large numbers of patients on a scheduled basis. Requests for such evacuation assistance go through normal command channels. The commander controlling the aviation units involved determines the priorities of support.

However, once the aircraft have been allocated to augment the aeromedical evacuation capability, the appropriate command surgeon supervises the employment of these aircraft by designating patients to be evacuated, pickup points, and place of delivery of patients.

14-10. Airborne Operations

a. The basic organization and operation of the medical service of an airborne force are similar to those of other forces. There is normally a shorter evacuation policy in an objective area, provided aircraft can land in the area. If air landing is not possible, additional medical units must be available to enable continuing treatment in the area. When air evacuation is feasible, the necessary medical installations are located near suitable air-landing facilities. In operations of longer duration, there can be a longer evacuation policy as additional medical facilities are established. Upon linkup, or as soon as airfields are established, normal evacuation and hospitalization procedures resume.

b. FM 8-16 and FM 57-1 contain details on medical service in airborne operations.

14-11. Amphibious Operations

In the initial stages of amphibious operations, naval means evacuate patients generated while the Army forces are afloat, to include those en route to beaches. Landing craft and other ships

transfer patients to ships that have the specific mission of hospitalization and evacuation. During initial phases ashore, each medical echelon lands with the supported unit (division clearing stations land with brigades; field army ambulance units land with division troops). Patients are evacuated to the shore party treatment facility. The shore party medical service collects, treats, and evacuates patients by helicopter or landing craft to hospital ships and other specially fitted and designated ships. Initiation of standard procedures is on a phased basis as the various echelons are established ashore.

14-12. Unconventional Warfare Operations

a. The maintenance of health of all personnel participating in unconventional warfare (UW) is particularly important. Until the overall operational situation favors the UW forces, evacuation from a UW area may be difficult. Medical supply is invariably critical. Because of many overriding situations, resupply of medical items may be unreliable. The UW forces may have to rely heavily on indigenous resources. Emphasis must be on ruggedness and durability for all medical supplies packaged for delivery to a UW area, because these items may be stored and used under the most adverse environmental conditions.

b. FM 31-21 contains details on medical service in UW operations.

Section III. COMMZ

14-13. TASCOT

The TASCOT commander is responsible for providing medical service for patients originating in units located in the COMMZ and for patients received from supported units located primarily in the combat zone.

14-14. Area Medical Service

The medical command provides area medical service for units in the COMMZ through the use of dispensaries, field hospitals, station hospitals, evacuation units, and other medical service elements. Dispensaries and hospitals provide unit-level medical support (less aidmen) on an area basis. Field or station hospitals and nondivisional clearing companies

provide division-level medical support on an area basis.

14-15. Hospitalization

Hospitalization in the COMMZ includes those hospitals that provide support to units both in the COMMZ and the combat zone. Normally, field or station hospitals support TASCOT units and general hospitals support units in the combat zone. However, each of these types of hospitals may be interchangeable in their roles, depending on the capabilities, limitations, and mission requirements of the units. Each hospital is located where it can best perform its mission. Other factors influencing hos-

14-16. Evacuation

The primary means of evacuation from the combat zone to the COMMZ are aircraft and ambulance trains (rail). Evacuation of patients from the combat zone (except by air) is the responsibility of the TASCOM commander. Ambulance trains (rail) evacuate patients from hospitals and holding units of the field army to the COMMZ, between hospitals in the COMMZ, and from hospitals to aerial and water ports for further evacuation. Medical ground ambulance units assigned to the medical command provide an additional patient evacuation capability. Such units, however, have limited ranges and are not suitable for routine use in evacuation over long distances. Evacuation by air from the combat zone to the COMMZ and from the COMMZ to the continental United States (CONUS) is a responsibility of the Air Force. Surface evacuation from the COMMZ is the responsibility of agencies in the CONUS; evacuation by ship is the responsibility of the Navy. Holding companies assigned to the medical command may assist the Air Force in providing temporary shelter and care of patients awaiting evacuation at air terminals. The TASCOM normally provides holding facilities at water terminals.

tion at air terminals. The TASCOM normally provides holding facilities at water terminals.

14-17. Flexibility

Medical resources of the TASCOM must be sufficient to provide the required flexibility for theater army medical activities. The medical service systems of field armies normally do not have requisite flexibility to cope with a large patient input in a short period of time. Such situations are met by increasing evacuation to the COMMZ or providing TASCOM units to reinforce the field army. The TASCOM must, therefore, have sufficient reserve medical resources to permit handling an abnormal patient load for short periods. This reserve should consist primarily of evacuation units, supplies, and hospital facilities. It should be distributed throughout the COMMZ and is best maintained by operating existing facilities below maximum capacity rather than by holding units in an uncommitted status. A certain amount of flexibility results from using cellular units of TOE 8-500 for temporary augmentation of large elements or by organizing them into service units to meet special situations.

Section IV. IMPACT OF NUCLEAR, BIOLOGICAL, AND CHEMICAL (NBC) OPERATIONS

14-18. General

The problem of caring for widely fluctuating numbers of patients increases under the conditions of NBC operations. The employment of NBC weapons against friendly troops may produce a large number of patients in a given area in a brief period. In addition, there may be a requirement to assist in the treatment of civilian patients, which will seriously compound the problem. The rate at which personnel become patients is of particular significance because it affects medical treatment capabilities. This consideration is a major factor in determining intratheater evacuation policies. The location of medical installations and facilities should be such that they are not susceptible to destruction by enemy nuclear attacks directed at other installations in the area.

14-19. Handling of Large Numbers of Patients

a. General. Army Medical Service doctrine provides for a contingent type of medical support following an enemy attack that results in large numbers of patients. Such support involves plans and expedient measures designed to cope with medical service problems that are basically similar to those encountered in conventional warfare, except that these problems will be greater in magnitude and compressed into a briefer timespan. The contingent aspects of medical service include the following:

(1) Greater stress is on first aid, with each individual expected to be sufficiently trained to administer self-aid and first aid to others.

pital location include the tactical situation, troop density, availability of transportation facilities, terrain, and length of lines of communications. Groupment of general hospitals under the control of hospital centers may promote efficiency of operation and permit increased specialized treatment of patients.

(2) Search and rescue operations in damaged areas and movement of injured personnel to nearby medical treatment facilities are largely by rescue squads and vehicles provided by other than medical units.

(3) Veterinary officers and emergency teams from dental units administer emergency medical treatment within their capabilities. Such personnel are under the direct control of the surgeon while the area damage control plan is in effect.

(4) Plans at all command levels provide for the care, treatment, and evacuation of injured personnel.

(5) Area medical service in disaster areas consists primarily of establishing sorting stations and administering emergency medical treatment. Medical sorting involves designating patients by categories, as follows:

(a) *Minimal treatment*—patients who can return to duty immediately.

(b) *Immediate treatment*—patients for whom expedient surgical procedures will save life or limb.

(c) *Delayed treatment*—patients who, after emergency care, incur little increased risk by delay in further treatment.

(d) *Expectant treatment*—patients so critically injured that only complicated and prolonged treatment offers any hope for improved life expectancy.

b. *Reinforcement of Medical Means.* An attack that produces a large number of patients will impose requirements for medical support beyond normal capabilities and will require temporary reinforcement of medical service means. Other units provide additional support (personnel and vehicles) to medical units. Civil affairs units may provide local civilian personnel to assist in the collection and evacuation of patients. Prisoners of war may provide similar assistance.

c. *Nuclear Radiation Patients.*

(1) Signs and symptoms rather than suspected radiation dosage are the bases for immediate management of nuclear radiation patients. Evacuation of individuals suspected of nuclear radiation injury is avoided unless the symptoms and physical findings clearly justify such action. Treatment and evacuation of these individuals is primarily on the priority of their associated burns or other injury. Nuclear radiation patients pose no particular hazard to other personnel.

(2) The interpretation of the medical significance of various levels of radiation dosage is a function of the medical service. The evacuation policy and maximum stay time permitted in a radioactive area are command decisions.

d. *Chemical and Biological Patients.*

(1) The immediate management of chemical patients will require special decontamination and treatment techniques.

(2) The medical effects of biological agents are often delayed. The sudden appearance of symptoms among large numbers of personnel will produce a rapid overload of medical facilities and will necessitate prompt identification of the causative agent and institution of appropriate therapy.

(3) Evacuation of chemical and biological patients is the same as that for conventional battle patients, except that grossly contaminated patients will have to be handled in a manner that does not contaminate the evacuation vehicle, other patients, or medical personnel.

e. *Evacuation and Hospitalization.*

(1) The evacuation policy calls for early sorting and prompt movement of selected patients to designated hospitals or other definitive treatment facilities in accordance with established priorities.

(2) Requirements for augmentation of emergency evacuation facilities go to the next higher or support element by the most expeditious method.

(3) The expansion of existing hospital facilities with available equipment provides the additional space necessary to hospitalize an unexpected large number of patients. Temporary expansion of each hospital also is possible with

emergency-improvised equipment or other emergency expedients, such as adjacent build-

ings, additional tentage for housing patients, and litters in lieu of beds or cots.

Section V. OTHER MEDICAL SERVICES

14-20. Preventive Medicine

a. The Department of the Army formulates and publishes general preventive medicine policies. Field army and division normally publish detailed implementing directives, which unit commanders carry out. Surgeons and preventive medicine personnel are available at division and higher staff levels to advise commanders on measures required to prevent noneffectiveness from disease and noncombat injury. In addition, other Army Medical Service personnel, including preventive medicine units and detachments, are available in the field army to carry out surveillance and special investigations and to advise on and supervise measures that are beyond the capability or area of responsibility of unit commanders.

b. The day-to-day prevention of disease and noncombat injury is the responsibility of commanders at all echelons. Therefore, all commanders must implement measures aimed at insuring safe water and food, protection against disease-bearing insects, adequate personal hygiene, and protection against such environmental factors as heat and cold. Medical personnel, when available, can advise and assist, but they are not a substitute for proper training and indoctrination of troops in matters of sanitation and hygiene. Neither can these personnel substitute for continuing command emphasis on preventive measures at every echelon.

c. To reduce casualties from enemy biological attack, it is particularly important that an effective immunization program be maintained and that the program be stressed at all command echelons to insure that personnel maintain up-to-date immunization records.

14-21. Dental Service

a. The theater dental surgeon prepares the general plan for dental service in the theater of operations in accordance with policies prescribed by the theater commander and the theater surgeon.

b. The mission of the theater army dental

service is to conserve the fighting strength by maintaining the oral health of all theater forces. Priority is directed toward preventive dentistry and providing treatment as far forward as possible so that patients can return to duty or be prepared for further evacuation. Dental officers are also trained to support all Army Medical Service activities, especially in mass-casualty situations.

c. Dental service in the theater of operations includes unit and area dental support.

(1) Unit dental support consists of expedient dental treatment provided by division clearing stations, small hospitals, and dispensaries.

(2) Area dental support consists of routine dental treatment provided by dental teams and organizations of TOE 8-500.

(3) The TASCOM provides COMMZ dental service through use of the same type of dental units as in the field army, as well as through fixed dental clinics and laboratories. Hospital dental services usually support hospital personnel and patients only.

14-22. Veterinary Service

a. Veterinary officers are on the staffs of the surgeons of field armies and the TASCOM to provide planning and staff supervision in the use of veterinary units and personnel located in their respective commands.

b. Veterinary service units provide veterinary support under the staff supervision and, normally, the operational control of the command surgeon. These units provide animal treatment and food inspection service and investigate and evaluate diseases that are transmittable to man (zoonoses). Veterinary inspections determine the wholesomeness of all foods that have been subjected to the effects of initial radiation, residual radiation, chemical agents, or biological agents.

14-23. Medical Supply and Maintenance

The medical supply and maintenance system in a theater of operations is an integral part of

medical service. It operates largely within the framework of the medical evacuation system. A medical depot is established in the field army service area and a medical advance platoon of this depot in each corps area. Medical supply points may be at major medical facilities in the COMMZ; however, COMMZ elements may receive supplies direct from the COMMZ medical depot. Using supply point distribution, divisions and other field army elements draw medical supplies from the closest medical supply point or depot. Hospitals in the field army area draw their medical supplies direct from the medical depot or from the medical supply points nearest them. When using units are unable to perform the necessary maintenance of medical equipment, maintenance teams and the medical depot provide direct support, and general support. If a medical unit possesses the tools, skill, and time to perform required maintenance, the appropriate medical supply agency issues required medical-peculiar repair parts.

14-24. Medical Laboratory Service

a. Medical laboratory support for the theater, except for laboratory facilities organic to treatment units, is under the command and control of the major medical commands (medical brigade in the field army and the medical command in the COMMZ). Medical laboratory units provide area service, as required, to both medical and nonmedical units operating throughout the theater.

b. Dental laboratory support is from the COMMZ fixed dental units that provide theater-wide support to dental treatment units.

14-25. Blood-Transfusion Service

The medical command plans and supervises the overall procurement, receipt, storage, distribution, and use of whole blood in the theater of operations. In the COMMZ, blood-bleeding detachments, bloodprocessing detachments, the medical laboratory, and the medical depot function together to provide blood to the COMMZ, and to the field army as required. A similar system functions in the field army. In the event that a field army lacks blood-collection capabilities, the COMMZ medical depot ships blood to field army as well as to COMMZ hospitals.

14-26. Medical Regulating Activities

The medical command is responsible for medical regulating activities in the COMMZ. It coordinates with the transportation command and U.S. Air Force agencies concerning surface and air evacuation of patients to COMMZ hospitals. The medical command medical regulating officer conducts medical regulating operations under the direction of the theater joint medical regulating office. This office—

a. Establishes bed-status reporting procedures for all Military Services operating fixed-bed hospitals in the theater.

b. Coordinates air and surface evacuation from the combat zone to fixed-bed hospitals in the COMMZ and from the COMMZ to the CONUS. The medical command reports the daily bed status of hospitals in the COMMZ to the theater joint medical regulating office which, in turn, allocates hospital bed spaces to the field army medical brigade. The field army medical brigade regulates patient transfers into and among medical facilities of the field army and insures that patients are delivered to terminals for interzonal movements.

14-27. Medical Support in Stability Operations

Poor health and sanitation conditions normally exist in areas where insurgency may occur. These conditions include inadequate water supply and sewerage disposal facilities, congestion caused by insufficient housing, and lack of sanitation control and medical care facilities.

a. Characteristically, medical civic action in stability operations will help to win and maintain the support of the people. Because of the importance of popular support, medical civic action is a major activity of the Army Medical Service in stability operations.

b. Normal medical service organization and procedures will require adaptation to the type of tactical operations. Complications to effective medical support include—

(1) The distances between and the number of fixed installations where support must be provided.

(2) The use of small mobile units in independent or semi-independent combat operations in hostile areas through which secure

ground evacuation may be impossible and from which evacuation of patients by air cannot be accomplished.

(3) The vulnerability of ground evacuation means to guerrilla ambush and attack and the inability to rely completely on scheduled convoy movements.

(4) Enemy NBC operations, which may increase the patient load, contaminate equipment, and require medical personnel to wear protective equipment.

c. The command may adopt any or all of the following measures, as appropriate and feasible:

(1) Provide medical treatment and patient holding capabilities at lower echelons of medical service than is normal (e.g., at area control bases and advisory detachments). Patients to be evacuated by ground transportation will be held until movement by a secure convoy is possible.

(2) Provide sufficient air or ground means to move medical units or elements rapidly to—

(a) Establish or reinforce existing treatment and holding installations where patients unexpectedly have become numerous.

(b) Provide unit-level medical service to small combat units operating away from their bases or temporary medical support to civilian localities subjected to attack by insurgent forces.

(3) Make maximum use of air evacuation means, including both scheduled and on-call evacuation support of fixed installations and combat elements in the field.

(4) Provide small medical elements to furnish unit-level medical support to tactical units on long-range missions.

(5) Assign mobile units male nurses or specially trained enlisted medical personnel capable of operating medical treatment facilities for short periods of time with a minimum of immediate supervision.

(6) Form non-U.S. litter bearer teams to accompany combat units when limitations of terrain or available means preclude transportation or evacuation of patients by other methods.

(7) Provide strict supervision of sanitation measures, maintenance of individual medical equipment, and advanced or special first aid training throughout the command.

(8) Place increased emphasis on basic combat training of medical service personnel; arming of medical service personnel, as required; and use of armored carriers for ground evacuation where feasible.

(9) Use allied medical resources and capabilities whenever they are available and professionally acceptable.

CHAPTER 15

PERSONNEL SERVICES

15-1. General

Personnel services are combat service support activities pertaining to personnel as individuals. The immediate objective of personnel services is to assist the commander in attaining and maintaining good morale in a command. Personnel services include those functions that are primarily the staff responsibility of the assistant chief of staff (ACofS), personnel (G1).

15-2. Special Services

The objective of special services is to increase the effectiveness of the Army through a planned off-duty program of sports, recreation, and library activities. The primary purpose of special services is to contribute to the mental and physical well-being of the individual. In the continental United States (CONUS), public facilities augment the activities of special services. In oversea areas, expansion of special services activities compensates for the lack of public facilities. Special services activities are a function of the personnel command in the theater army support command (TASCOM) and of support brigades in the field army support command. FM 12-2 provides detailed information on special services operations.

15-3. Rests and Leaves

a. AR 630-5 and theater army policies are the authority for granting rests and leaves.

b. Passes are periods of free time, limited to 3 days, that are not chargeable against accrued leave. Temporary duty (TDY) for rest and recuperation (R&R) is directed duty designed to rehabilitate the individual mentally and physically.

c. Quotas for leave, pass, and TDY for R&R may vary among theaters and even among units. The purpose of a quota system is to in-

sure priority to troops having the greatest need for R&R. Quotas in the theater depend on capacity of leave and recreation centers and areas (FM 12-2), transportation, travel time, and duration of stay authorized at different facilities.

d. Rest areas and rest camps are normally for use by unit-size groups from squad up to and including battalion. Leave and recreation centers and leave areas are for use by individuals. Units using rest areas provide their personnel bedding, tents, and rations and furnish supervisory personnel for control purposes.

15-4. Rest Areas

a. When combat operations permit, divisions and separate combat brigades establish some type of rest area in their operational areas. Separate or divisional brigades may establish a "waterhole" type of rest or recreational camp near the bath and clothing exchange elements. A special services team of the corps support brigade operates the rest area. Equipment and supplies for self-help sports, games, and projects are available in minimal quantities. The division rest area provides facilities for no more than 750 personnel at any one time, while the separate brigade rest area provides facilities for no more than 250.

b. Special services teams, operating under the control of the support brigade personnel and administration battalion commander, establish rest areas in the field army and corps areas. Each support brigade area provides a maximum of eight such rest areas, which operate near the bath and clothing exchange elements. Medical, dental, finance, mess, postal, chaplain, engineer, exchange, bath, and clothing exchange activities provide additional support to rest areas in the combat zone, usually through the use of teams.

c. Special services teams, operating under the control of the area support group commander, establish rest areas in the communications zone (COMMZ). The area support command (ASCOM), TASCOM, provides supply, maintenance, medical, military police, finance, chaplain, and exchange services to these rest areas.

15-5. Leave and Recreation Centers

Cellular teams of the special services organization, personnel command, establish and operate leave and recreation centers in the COMMZ. Each center services from 200 to 800 troops. A special services detachment of the special services organization provides command, control, and supervision of each center's activities. The area support group commander of the area in which a center is established provides support services for the center. There may be a maximum of 12 centers established for a one-field army theater or a 12-division force. Medical centers also have leave and recreation centers. All leave and recreation centers provide bedding, billets, and food service. For lay personnel who desire chaplain activities, a retreat center is available in the overall center complex. A maximum of 9 days, including 4 days' travel time, may be authorized annually for an individual to be absent from his unit for leave and recreational purposes.

15-6. Rotation

a. The purpose of rotation is to conserve manpower, increase efficiency, and improve the morale of the theater forces. Exchanging new replacements for veteran soldiers prior to the time that the latter become physically or mentally exhausted achieves the purpose of rotation.

b. The rotation plan consists of rotation within a theater or rotation between theaters and the CONUS. The length of a normal overseas tour is subject to review when hostilities commence. When the length of an overseas tour is prescribed or is subject to a point system, the infusion of individual replacements into units in the theater of operations can preserve unit integrity. This process precludes mass exodus of personnel from the units by staggering individual rotation dates.

c. Theater commanders determine the criteria for intratheater rotation eligibility. Individuals with the greatest combat exposure receive priority. Emphasis is on retraining, reassigning, and transferring personnel between forward and rear areas. When rotation between overseas theaters and the CONUS is authorized, theater commanders establish the standards for implementation, based on availability of replacements. In the absence of a theater army intratheater rotation program, the field army may implement its own program.

15-7. Decorations and Awards

a. *References.* AR 310-10 and the AR 672-series contain details on the purpose, authority, and standards relative to decorations and awards.

b. *General.* The awarding of decorations recognizes extraordinary, unusual, or outstanding acts of heroism and meritorious achievement or service. Decorations are visible and tangible public evidence of such acts or services and are cherished accordingly by the individuals who receive them. When promptly and judiciously awarded, with appropriate ceremony, they become incentives to greater effort and are instrumental in building and maintaining morale.

c. *Award of Decorations.*

(1) Because of the increased number of awards authorized during wartime, authority to award decorations is delegated to commanders in the field. This insures prompt recognition of heroism, meritorious achievement, and meritorious service. A complete understanding of the established standards for each decoration and close conformance to these standards are imperative. Deviation from established standards gives rise to complaints of inequity and tends to lower the overall value of decorations.

(2) Theater army commanders establish and maintain a uniform decorations and awards policy. This policy provides for judicious interpretation of requirements, appropriate delegation of authority, efficient processing, decorous presentation, and adequate publicity. Implementation of the policy is through the use of awards boards, precombat instruc-

tion, frequent comparisons of accomplishments, observation, and administrative reports.

(3) Commanders of units, to include divisions or lower units, establish awards policies to insure effectiveness of the awards system. To obtain uniformity throughout the theater, subordinate commanders base their policies on those of the next higher echelon. Normally, each commander retains authority to make certain specific awards.

(4) Recommendation for individual awards go through command channels. Each commander through whom the recommendation passes indicates his approval or disapproval. In event of disapproval, he cites specific reasons and includes a comment with regard to consideration for lesser awards appropriate to the act. Except when specifically authorized by Army regulations, recommendations do not return to the originator until they have been acted on by the commander having authority to make the award. Return of recommendations to the originator for administrative reasons is avoided.

(5) Commanders having authority to award decorations may appoint boards of officers to consider recommendations for awards and make appropriate recommendations. The board should consist primarily of unit commanders, but staff representatives with intimate knowledge of the policy and standards pertaining to decorations also should be on the board.

d. Civilian Awards. Civilians may receive recognition for meritorious achievements and services to the Army by award of decorations. The general standards required to merit such awards are comparable to those required of military personnel.

e. Awards to Foreign Personnel. As a means of fostering good will and cooperation, meritorious achievements and services by military and civilian personnel of friendly nations who have materially assisted the United States in the prosecution of war against the enemy may be recognized by the award of decorations. While less proof may be required, the standards prescribed by Army regulations apply equally to personnel of foreign nations and to U.S. military personnel.

15-8. Postal Service

a. Each Service administers its own military postal system to support its particular requirements under the terms of the postal agreement between the Department of Defense and the U.S. Post Office Department. Military postal service is a responsibility of command at all echelons.

b. The Department of the Army jointly operates a postal service with the Air Force. The mission of the Army and Air Force Postal Service is to administer, supervise, and coordinate the worldwide postal activities of the Army and the Air Force. It formulates policy for postal operations, and the commander in the field is responsible for executing this policy. The Adjutant General is responsible for administrative supervision of postal service in the Army.

c. FM 12-2 provides details on the postal service organization, mission, and functions in theaters of operations.

15-9. Personal Affairs

Proper arrangement of an individual's personal affairs contributes materially to his military effectiveness. DA Pam 608-2 contains information pertaining to personal affairs. The survivors assistance officer furnishes DA Pam 608-4 to the next of kin as provided for in AR 600-10.

15-10. Nonappropriated Fund Activities

a. Nonappropriated fund activities are funds, associations, clubs, messes, or similar organizations operated and maintained from nonappropriated funds. There are three major categories of nonappropriated fund activities. Each has distinctive characteristics as to source of income, nature of operation, and mission for which established.

(1) *Revenue-producing activities* are financially self-sustaining operations established to sell goods and services to military personnel and certain civilian personnel and to provide financial support for welfare funds. Exchange services and motion-picture theaters are examples of revenue-producing fund activities.

(2) *Welfare fund activities* consist of nonappropriated funds established to supple-

ment appropriated funds in providing a well-rounded morale, welfare, and recreation program. Income is primarily from revenue-producing activities. Expenditures may be for recreational-type articles and services in support of programs designed to benefit authorized participants without charge, or with nominal charge when available resources are inadequate. Examples of welfare funds are major command welfare funds, central post funds, and unit funds.

(3) *Sundry fund activities* are financially self-sustaining operations established to provide certain essential services to specific categories of personnel. Individual benefits, on a membership basis, are from participation in, or patronage of, the programs available. Examples of sundry fund activities are officer and noncommissioned officer open messes and chaplain funds.

b. Nonappropriated fund activities are Government instrumentalities and, as such, are entitled to all attendant immunities and privileges. Officers or civilian employees of the U.S. Government, acting within the scope of their official capacity, establish and supervise these activities as a command function.

c. The services provided by nonappropriated fund activities have an important bearing on morale and welfare. Operation of these activities is under the general staff guidance and supervision of the G1.

15-11. Army and Air Force Exchange Service

The mission of the Army and Air Force Exchange Service is to supply military personnel and other authorized persons with articles of necessity and convenience not provided by Government issue and to gain profits for distribution to welfare activities not provided for by appropriated funds. In a theater actively engaged in combat operations, the articles for resale usually consist of toilet articles, candy, tobacco products, soft drinks, beer, souvenirs, and other items that add to the comfort of the individual. In the CONUS, in an occupied zone, and in other oversea areas, the list of items provided for resale is more extensive and varied. The mission is accomplished through es-

tablishment of permanent exchanges and exchange branches. Under field conditions—particularly in combat areas—when exchange operations are impractical, the theater army commander authorizes certain essential items for issue as part of the field ration.

15-12. Chaplain

a. The chaplain is the advisor to the commander in matters related to religion, morals, and morale in the command. He also advises the commander on indigenous religions as they affect the mission of the command. He exercises for the commander responsibility for—

- (1) Religious services and ministrations.
- (2) Religious education of military personnel and civilians attached to the Army and their dependents.
- (3) Pastoral care and counseling.
- (4) Character guidance.
- (5) Liaison with religious leaders in the civilian community.
- (6) Religious administration.

b. The chaplain is a representative of his denomination in the Army. As such, he is responsible to his denomination for compliance with ecclesiastical requirements.

c. The military duties of the chaplain, as prescribed by Federal law, are analogous to those performed by clergymen in civilian life, modified by distinctive conditions attached to military life. Each chaplain, as far as practicable, serves the religious and moral needs of the personnel of the command to which he is assigned. Within the limits of laws, regulations, and orders, he enlists the active aid and cooperation of military and civilian personnel, both lay and clerical, as the needs of the command may require or as the commander may direct. He has training responsibilities in connection with the character guidance program (AR 600-30).

d. A chaplain is not assigned duties other than those required by law, or pertaining to his profession as a clergyman, except in an extreme military emergency. When such an emergency makes it necessary for a chaplain to perform secular duties, he cannot be assigned any duty incompatible with his status as a non-combatant under the terms of the Geneva Con-

ventions. He does not and will not be required to bear arms. He is not available for detail as exchange, athletic, recreation, graves registration, welfare, morale, information, education, personal affairs, or special services officer. He is not used for duty as trial counsel of courts-martial or as investigating officer, defense counsel, law officer, or member of the court.

e. FM 16-5 contains details on the responsibilities and functions of the chaplain.

15-13. Welfare Service

The American Red Cross provides service for members of the Armed Forces in theaters of operations in accordance with its Federal charter. The Army Emergency Relief extends financial aid to personnel of the U.S. Army and their dependents. The Army Relief Society is a separate organization founded specifically to assist needy widows and orphans of Regular Army personnel. These agencies, combined with organic means, provide welfare services in the theater.

15-14. Legal Assistance

The staff judge advocate, as part of the preventive law program, provides legal assistance to eligible personnel in theaters of operations. This service includes advice, drafting of documents, and referral of legal matters in appropriate cases to civilian counsel of the individual's choice. The usual attorney-client relationship exists, and the information and files of individual cases are confidential and privileged.

15-15. Army Claims Program

The Army claims program enables the commander to protect the interests of the United States. As part of the preventive law program, it has a profound impact on the morale of military personnel in a theater of operations. The prompt adjudication and payment, when appropriate, by the Army of claims for losses sustained by military personnel incident to their service and of claims arising from the acts of military personnel are important in maintaining a high standard of morale. By prompt and adequate payment of just claims, the claims program provides additional assurance to the commander that he will have favorable public relations in his area of command and favorable relationship with the host government.

15-16. Finance Service

Acting under the staff supervision of the ACofS, comptroller (or the G1, when no comptroller is authorized), Finance Corps elements are responsible for planning the finance support of the command, to include procurement and deployment of finance units. When forces are deployed overseas, the ACofS, comptroller, promptly initiates the development and distribution of plans to the command for emergency currency controls that may become necessary in the future. FM 14-3 contains a detailed description of the finance service mission, organization, and functions.

CHAPTER 16

PERSONNEL REPLACEMENTS

16-1. General

a. Personnel replacement functions include procurement, reception, classification, distribution, training, and assignment of individual and unit replacements to and within theaters of operations.

b. Training of individual and unit replacements is in the continental United States (CONUS), based on the known and projected requirements for the Army in the field. Any retraining that may be required in the theater results from command evaluation of the individuals or units concerned and takes the form of normal command training or on-the-job training.

c. There are two types of personnel replacements, as follows:

(1) *Individual replacement*—an individual assigned or destined for assignment to fill a vacancy in an organization.

(2) *Unit Replacement*—a table of organization and equipment (TOE) unit assigned or destined for assignment to fill a vacancy in an organization. Unit replacements may range from cells (TOE 500-series) up to and including battalion and group size.

d. FM 12-2 describes the automated system for assignment of replacements in detail and discusses the mission, organization, and functions of replacement operating units.

e. Figures 16-1 and 16-2 illustrate schematically the flow of individual and unit replacements between the CONUS and a theater of operations and within the theater of operations.

16-2. System Relationships

The theater army automated system for assignment of replacements ties in with the CONUS system through the vertical personnel and administrative system that extends from the unit in theater army through the Depart-

ment of the Army. The theater army replacement system reports requirements by status and strength, based on individual status changes received from automatic data processing elements of supported activities in theater army. Requirements for unit replacements also include the composition of the unit being replaced. This replacement system must coordinate with the systems of the transportation command and the supply and maintenance command to insure timely and adequate transportation of replacements intratheater and issue of appropriate clothing and equipment to replacements as required.

16-3. Operational Concepts

a. The personnel and administration center (PAC) of the personnel command (PERSCOM) maintains the field administrative personnel record file on all theater army personnel. Using automatic data processing techniques, the PAC requisitions, assigns, and operationally controls individual and unit replacements, including personnel in the theater being returned to duty status. The replacement element of the PAC performs centralized reclassification and reassignment actions for the latter.

b. Replacement regulating detachments assigned to the PERSCOM and to field army and corps support brigades receive replacements from the CONUS and from within theater army, provide them mess and billets, and stage unit replacements.

c. The replacement element of the PAC notifies replacement regulating detachments of expected arrival times of incoming shipments of replacements and keeps commanders informed of replacement allocations made to their units. The regulating detachments, in turn, report daily to the PAC concerning replacements re-

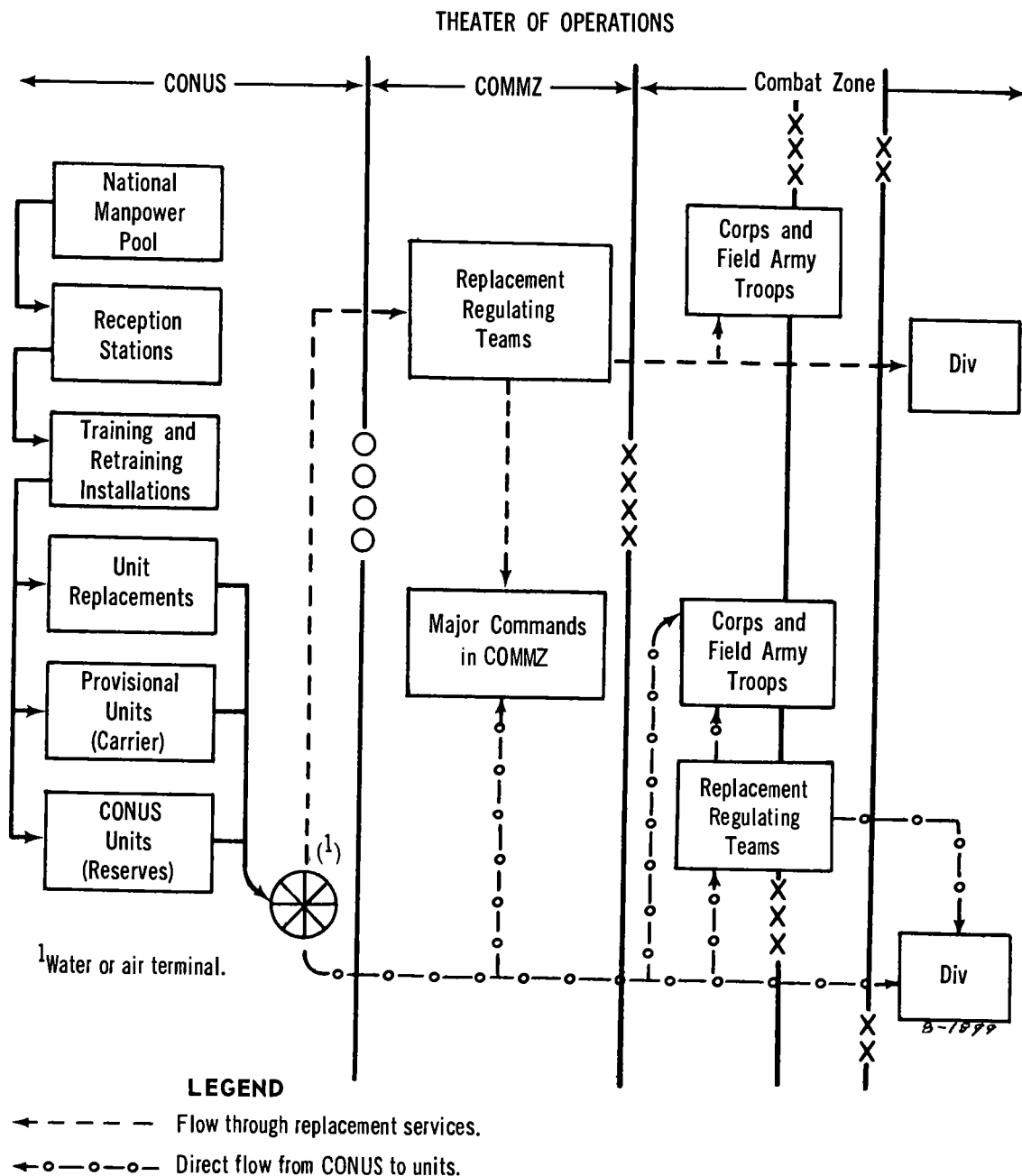


Figure 16-1. General flow of individual, packet, and unit replacements (schematic).

ceived, those in transit, those awaiting onward transportation, and nonarrivals.

d. Theater army stockage of replacements is kept to a minimum based on immediate requirements. However, stockage may be increased by a short-range lead (up to 7 days) to sustain planned major tactical operations when the transportation capability cannot support the planned replacement movement required.

e. Staging areas provide accommodations for troop units and transient personnel between movements over the lines of communications. Staging areas are usually within easy marching distance of terminals, transfer points, airfields, or highways over which troop movements are planned. The location selected for a staging area should afford protection against attack by mass-destruction weapons. Facilities

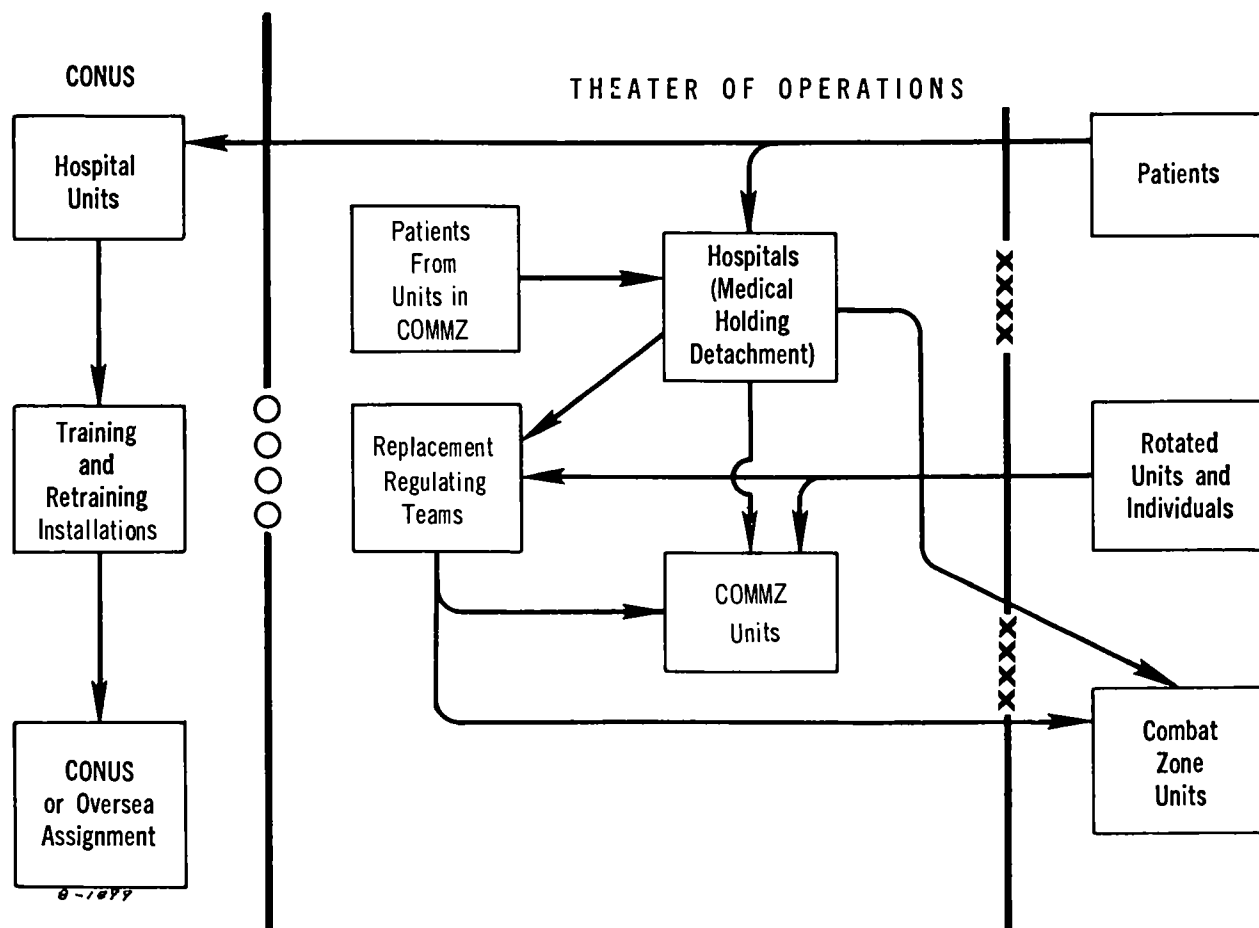


Figure 16-2. General flow of hospital returnees and rotated units and individuals (schematic).

may vary from simple bivouac areas to establishments with covered shelter, mess, supply, and medical services. Staging areas must accommodate both personnel and their equipment. Often, they must also make provision for reuniting troops with their equipment, when it has been shipped previously, or for issuing equipment that is provided separately. Movement through staging areas must be expedited. The PERSCOM establishes the staging areas operated for both individual and unit replacements.

16-4. Requisitioning

a. Theater army headquarters prepares net loss estimates for submission to the Department of the Army, reflecting projected personnel requirements from sources outside the theater. These estimates go forward monthly and

indicate anticipated unit and individual replacement requirements for from 2 weeks to 8 months subsequent to the date of projection. The Department of the Army uses the submitted estimates for—

(1) Planning input into the training base to meet projected requirements.

(2) Planning input into advanced individual training and technical training.

(3) Allocating personnel, alerting CONUS installations of forthcoming requirements, and estimating transportation requirements.

b. Direct support personnel units send daily to the replacement element of the PAC, files containing identification of the supported units and information on existing and projected vacancies. These personnel units prepare the vacancy files from information contained in the command record file and use them to request

individual and unit replacements. The replacement element of the PAC assigns replacements daily to fill these requirements, subject to priorities established by theater army headquarters.

c. The replacement element of the PAC prepares a weekly theater-wide consolidation of

individual and unit requirements. The PAC uses this consolidation as the basis for allocating replacements to units in the theater army and in preparing the monthly projection that is forwarded to the Department of the Army.

d. The 2-week projection (a above) serves as the theater army requisition.

CHAPTER 17

MILITARY DISCIPLINE

Section I. INTRODUCTION

17-1. General

a. Discipline, law and order are functions of command. Commanders and staff officers must anticipate the effect of their plans and activities on discipline, law and order in the command. Nuclear, biological, and chemical operations will increase problems of traffic control, circulation control of individuals, evacuation of prisoners of war, and security of critical installations and materiel. Contamination of areas, facilities, and traffic routes, with the attendant confusion and loss of control, will impose heavy demands for sealing off stricken areas, providing security of critical supplies, and collecting individuals for return to their units. Similarly, devastation of the civilian economy may increase smuggling, looting, black-market activities, and illegal sale or barter of military materiel, requiring careful planning and execution of preventive and corrective measures.

b. Discipline is the state of order and obedience among military personnel. Manifestations of discipline are willing response to commands under all conditions; proper military conduct; and strict observance of military regulations, civil laws, and customs.

c. The major objectives of discipline, law and order are—

(1) Combat effectiveness (success in combat is the ultimate aim of discipline).

(2) Development of habits and attitudes conducive to obedience.

(3) Minimum losses in manpower because of trials, punishment, and confinement.

d. Indicators of poor discipline include—

(1) Excessive absences without leave and desertions.

(2) Increase in number and seriousness of court-martial offenses.

(3) Increase in arrests of military personnel by civilian law enforcement agencies.

(4) Marked increase in malingerers.

(5) Heavy losses in equipment due to carelessness.

(6) Black-market activities.

(7) Carelessness in dress and saluting.

(8) Indifference to personal cleanliness and to cleanliness and neatness of quarters.

(9) Improper response to commands, directives, and orders.

(10) Large numbers of requests for transfer.

(11) Self-inflicted wounds.

17-2. Measures for Maintaining Discipline, Law and Order

a. Discipline, law and order activities are of two types—preventive measures and corrective measures.

b. Preventive measures induce military personnel to develop habits and attitudes of obedience and respect for authority. They help eliminate existing or potential causes of law violations or adverse behavior. Preventive measures include—

(1) Sound leadership.

(2) Instructing personnel in obligations, privileges, requirements for law and order, and provisions of the Uniform Code of Military Justice (UCMJ).

(3) Effective and continuing command information programs designed to develop understanding of the personal role and mission and a sense of responsibility for proper personal conduct.

(4) Command guidance and emphasis on all phases of character guidance instruction.

(5) Ceremonies and programs to develop military smartness, pride in organization, personal appearance, and personal accomplishment.

(6) Proper employment of military police (MP).

(7) Cooperation between military units and civil authorities.

(8) Issuance of only those instructions and orders that can be enforced.

(9) An equitable leave program.

(10) Placing persistently troublesome civilian establishments and areas off limits.

(11) Private rebuke and considerate counsel in cases of initial minor offenses.

(12) Study, analysis, and elimination of causes of violations.

(13) Avoidance of disciplinary actions that remove the offender from training and from the hazards and hardships of combat.

(14) Insuring that personnel are afforded an opportunity to be heard regarding complaints and that, when warranted, corrective measures are taken.

(15) Encouraging attendance at religious services and practices of individual religious obligations.

(16) Rehabilitation after confinement.

c. Corrective measures deal with offenders. These measures include the nonpunitive measures (e.g., admonition and reprimand) discussed in *Manual for Courts-Martial, United States, 1951*, paragraph 128c; nonjudicial punishment pursuant to Article 15: UCMJ; and trial by courts-martial. The measure employed in any particular case should be the minimum necessary to meet the ends of justice and discipline.

17-3. Crime Prevention

a. The purpose of crime prevention is to reduce the incidence of crime and to provide protection of property and person.

b. The provost marshal plans and coordinates the command crime prevention program. To assist in determining local conditions conducive to crime, he conducts a crime prevention survey, which is an examination and inspection of physical, geographic, and sociological conditions within the adjacent to the military installation. The provost marshal circulates results of the survey to inform commanders and staffs of conditions requiring corrective actions and to gain support of the command crime prevention program.

Section II. ABSENCE WITHOUT LEAVE, DESERTION, AND STRAGGLER CONTROL

17-4. General

a. Absence without leave adversely affects combat efficiency and is of serious concern to commanders. Factors contributing to absence without leave and desertion include—

(1) Failure to obtain a pass when needed or believed to be needed.

(2) Poor adjustment to the Army.

(3) Job misclassification and misassignment.

(4) Real or imagined illness.

(5) Poor leadership, real or imagined.

(6) Personal abnormalities.

(7) Unnecessary hardship and favoritism, real or imagined.

b. Actions taken by the commander to prevent or reduce cases of absence without leave, desertion, and straggling include—

(1) Establishment and maintenance of equitable leave, pass, and promotion policies.

(2) Development of mutual respect and confidence, to insure that personal problems are brought to the commander's attention and promptly resolved.

(3) Recognition for jobs well done throughout the command.

(4) Employment of proper personnel assignment and management procedures.

(5) Implementation of a sound military justice program, including prompt administration of corrective action for offenders.

17-5. Stragglers

a. Stragglers are military personnel in the combat zone or on maneuvers who are away from their unit without proper authority.

Straggler control is a function of command at all echelons and is conducted by commanders throughout their areas of responsibility.

b. A straggler line is an MP control line, which may be manned or unmanned. The prevailing type of action determines the specific location of the line. Straggler lines are normally along lateral lines of communications and are easily identifiable terrain features. Normally, straggler lines of adjacent units connect. MP apprehend stragglers, line crossers, and infiltrators in the rear of the line.

c. While straggler posts are not established routinely, they may be organized at critical points, usually on the natural lines of drift to

the rear. When established, posts are interconnected by communications, and patrols operate between posts. The posts are located in defilade and concealed from enemy observation. Normally, traffic control posts and traffic patrols have the additional duty of straggler control.

d. Straggler collecting points are designated locations (usually an MP station or headquarters) where stragglers are assembled for return to their units or for evacuation to the rear. The provost marshal plans and coordinates the establishment of these collecting points and arranges transportation when required. Collecting points are near a medical facility to permit medical sorting of stragglers.

Section III. MILITARY JUSTICE

17-6. General

a. Military justice is the application of military law to persons subject thereto and accused of the commission of offenses under the UCMJ. Military justice is administered in accordance with the UCMJ, the Manual for Courts-Martial, and the decisions of the courts. Included in the system are the procedures relating to trial by courts-martial and to nonjudicial punishment for minor offenses.

b. The staff judge advocate has direct staff responsibility for the administration of military justice in the command (FM 101-5).

c. The statistical records of the staff judge advocate are important sources of information on the status of discipline in a command. The staff judge advocate communicates directly with the commander on matters relating to the administration of military justice. He keeps the assistant chief of staff, personnel (G1), informed of those matters pertaining to discipline, law and order that are the staff responsibility of the staff judge advocate.

d. The proper administration of military justice requires the cooperation of all members of the staff and subordinate commanders in a command and includes the following:

- (1) Proper preventive measures.
- (2) Study of cases to discover and eliminate causes.
- (3) Appropriate training in military justice to insure that personnel perform their administrative, courtroom, and command respon-

sibilities in accordance with the provisions of the UCMJ, the Manual for Courts-Martial, and the decisions of the courts.

(4) Selection of court members who are best qualified for the duty by reason of age, education, training, experience, length of service, and judicial temperament.

(5) Establishment of proper confinement policies and effective surveillance to insure compliance.

(6) Use of the advice and assistance of the staff judge advocate.

(7) Establishment of effective clemency and rehabilitation programs.

(8) Fair and just administration of the military justice system at all echelons of command.

(9) Use of good judgment and common-sense in the maintenance of discipline, without undue resort to trial by courts-martial.

(10) Insuring that an accused is tried by court members who are free to exercise their own judgment and discretion.

17-7. Study of Cases

Reports prepared by the staff judge advocate and by the provost marshal indicate when the number of offenses is abnormal, which offenses occur most frequently, and whether offenses are common or localized. Preventive and corrective actions are based on analysis of the reports. Determinations are made on whether

command-wide action is needed or a particular unit needs special attention.

17-8. Confinement Facilities

The personnel command, theater army support command, operates confinement facilities and rehabilitation centers for U.S. military prisoners and, when requested, relieves the combat forces and area support commands of such prisoners within theater army policies. Pris-

oners confined in these facilities normally include those who have been tried and whose sentences do not include punitive discharges or those who are potentially restorable to duty. The primary purpose of these facilities is the training of U.S. military prisoners for return to duty. All other U.S. military prisoners normally are evacuated to the continental United States.

Section IV. MILITARY POLICE

17-9. Provost Marshal

a. The provost marshal is the commander's advisor on all law enforcement and related matters. Depending on the employment and mission of the particular command concerned, the provost marshal provides the commander professional advice and recommendations within the following technical and functional areas as may be applicable:

- (1) Maintenance of order and discipline.
- (2) Enforcement of laws, orders, and regulations.
- (3) Confinement, care, and rehabilitation of military prisoners.
- (4) Collection, evacuation, processing, care, guarding, employment, and repatriation of enemy prisoners of war and civilian internees.
- (5) Identification of individuals, both military and civilian.
- (6) Circulation control of individuals, both military and civilian.
- (7) Control of traffic, both military and civilian.
- (8) Crime prevention and investigation.
- (9) Protection of property, installations, activities, and personnel and their physical security.
- (10) Provision of aid to military or civil authorities in civil disturbances and disasters.
- (11) Provision of MP support for rear area protection operations.

b. In accomplishing these responsibilities, the provost marshal—

- (1) Continuously studies and evaluates the MP support situation in light of the tactical situation and the operational environment.

(2) Provides the commander and staff with the required information and advice on MP support and the state of order and discipline in the command.

(3) Prepares estimates of MP support requirements.

(4) Recommends to the commander employment and priorities of available MP support resources.

(5) Recommends to the commander the establishment and promulgation of such policies, plans, directives, and orders as may be required in the maintenance of discipline and order in the command.

(6) Translates the decisions and plans of the commander into appropriate orders and directives for distribution to the command.

(7) Exercises staff supervision and coordination to insure that the policies and orders of the commander are implemented and executed.

(8) Provides MP commanders with technical advice.

(9) Plans and coordinates MP support provided other Military Services and allied forces.

(10) Coordinates differences between supported elements and the supporting MP task organization and recommends to the commander solutions to these differences.

(11) Inspects current MP support.

(12) Assists in the preparation of, and exercises technical supervision over, MP and related training programs of the command.

(13) Establishes and maintains such administrative files, records, and reports as may be necessary.

(14) Supervises and directs the activities of the command provost marshal section.

(15) Maintains liaison with—

(a) The staff provost marshals of supported, supporting, and adjacent commands.

(b) Provost marshals and MP commanders of other Military Services and allied forces.

(c) Civil law enforcement and security agencies.

(16) Coordinates medical support requirements for enemy prisoners of war and civilian internees.

17-10. MP Statistics

MP statistics are recorded facts pertaining to offenses. They are indicative of the status of morale, discipline, and training of a command. They indicate areas that may require corrective action and provide the commander with

information on the extent, character, location, and time of incidents. Analysis of the statistics leads to the detection of sensitive areas.

17-11. Support of Stability Operations

In support of stability operations, MP may become directly involved with civilian controls and enforcement of emergency regulations. In addition to their normal functions, MP in stability operations place special emphasis on circulation control, physical security, civil disturbances and riot control, handling of prisoners, food and other resources control, organization and operation of a police intelligence system in civilian communities, and other specialized techniques for control of civilians. MP can provide plans, advice, training, and supervision to civilian police personnel in populace and resources control measures, technical police operations, and investigations.



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CHAPTER 18

GRAVES REGISTRATION

18-1. General

a. Graves registration in support of military operations provides for—

(1) Search, recovery, and evacuation of remains of deceased military personnel, certain civilians, and allied and enemy personnel as required.

(2) Identification and temporary disposition of remains.

(3) Recovery and disposition of personal effects.

(4) Establishment, operation, and maintenance of temporary military cemeteries.

(5) Preparation of pertinent records and reports.

b. The assistant chief of staff (ACofS), personnel (G1), has staff responsibility for graves registration service in tactical commands. The ACofS, services and engineering, has this responsibility in the theater army support command and the ACofS, services, in the field army support command.

c. FM 10-63 provides details on organization, functions, and operations relating to the handling of deceased personnel in the theater of operations.

18-2. Reasons for Graves Registration

a. An efficient graves registration service maintains adequate sanitation, sustains mili-

tary and civilian morale, and complies with the laws of land warfare. The morale factor includes that of the military and the civilian population. Much of the work of the graves registration service is toward maintaining harmonious public relations with the civilian population of the United States. Prompt evacuation and burial normally satisfies the requirements of preserving adequate sanitation of the area and morale of the combat troops.

b. The laws of land warfare require that each belligerent establish a graves registration service to insure prompt and adequate care for the enemy dead.

c. The system of graves registration insures—

(1) Prompt and accurate identification of remains.

(2) Evacuation of remains to a cemetery and proper interment.

(3) Marking and registering of graves so that remains may be disinterred and final disposition accomplished.

(4) Search and recovery of remains not recovered.

(5) Forwarding of personal effects found on the remains to the proper recipient.

(6) Prompt, accurate, and complete administrative recording and reporting.



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CHAPTER 19

PRISONERS OF WAR AND CIVILIAN INTERNEES

19-1. General

a. In the treatment of enemy prisoners of war (PW) and civilian internees, the United States adheres to the customary laws of land warfare and to the following international agreements (DA Pam 27-1):

(1) Geneva Convention Relative to the Treatment of Prisoners of War of 12 August 1949, hereinafter referred to as the Geneva (PW) Convention.

(2) Geneva Convention Relative to the Protection of Civilian Persons in Time of War of 12 August 1949, hereinafter referred to as the Geneva (Civilian Persons) Convention.

b. The governing motive of these Conventions is to provide for the humane treatment of enemy personnel in the custody of parties to a conflict. The Conventions regulate in detail the treatment of PW and civilian internees, including—

- (1) Care, food, and clothing.
- (2) Discipline and punishment.
- (3) Labor and pay.
- (4) External relations.
- (5) Representation.
- (6) Information agencies, centers, and bureaus.
- (7) Termination of captivity.

c. The Geneva (PW) Convention provides that upon the outbreak of hostilities, and in all cases of occupation, parties to the conflict establish an official PW information center. The Convention also provides for the creation of a central PW information agency in a neutral country. These two activities assist in the collection and exchange of information pertaining to PW's held by parties to the conflict. The PW information center collects personal valuables left by PW's who are repatriated or released, or who have escaped or died, and transmits these valuables to the powers concerned. The

branch PW information centers normally retain the personal effects of enemy dead in the oversea area rather than forwarding them to the continental United States.

d. A separate civilian internee information center assists in the collection and exchange of information pertaining to civilian internees held by parties to the conflict. There are branch civilian internee information centers in the theater of operations as required. The civilian internee information center and its branches perform the same functions with respect to civilian internees that the PW information center and its branches do with respect to PW's. The branch civilian internee information center may be adjacent to the branch PW information center in the theater of operations.

e. FM 19-40 contains detailed coverage of the handling of enemy PW and civilian internees. DA Pam 27-1 contains provisions of treaties governing land warfare.

19-2. Terms

a. PW's. Upon capture, persons belonging to one of the following categories are classified by the Geneva (PW) Convention as PW's:

(1) Members of the armed forces of an enemy party to the conflict, as well as members of militias or volunteer corps forming part of these armed forces.

(2) Members of other militias and of other volunteer corps, including those of organized resistance movements, belonging to an enemy party to the conflict, provided they—

(a) Are commanded by a person responsible for his subordinates.

(b) Have a fixed distinctive sign recognizable at a distance.

(c) Carry arms openly.

(d) Conduct their operations in accordance with the laws and customs of war.

(3) Members of regular armed forces who profess allegiance to a government or an authority not recognized by the detaining power.

(4) Persons who accompany the enemy armed forces without actually being members thereof (such as war correspondents and supply contractors), provided they have received authorization from the armed forces they accompany and have in their possession the prescribed identification cards.

(5) Members of crews of the merchant marine and the crews of civil aircraft of an enemy party to the conflict who do not benefit by more favorable treatment under any other provisions of international law.

(6) Inhabitants of a nonoccupied territory who, on the approach of the enemy, spontaneously take up arms to resist the invading forces, without having had time to form themselves into regular armed units, provided they carry arms openly and respect the laws and customs of war.

b. Civilian Internees. Civilian internees are persons protected by the Geneva (Civilian Persons) Convention and who are interned—

(1) For security reasons, in accordance with Article 78 of the Convention.

(2) Because they have been convicted of an offense against the retaining power and sentenced to internment pursuant to Article 68 of the Convention.

c. Retained Personnel. The term “retained personnel” refers to certain categories of personnel exclusively engaged in medical or religious duties, such as medical personnel and chaplains. Retained personnel are not considered PW’s. For security purposes, however, and so that their services may be properly used, they remain in PW installations and receive treatment no less favorable than that of PW’s of equivalent rank.

d. Protecting Power. The term “protecting power” refers to a neutral power that, with the consent of two opposing parties to the conflict, endeavors to safeguard the interests of one of the parties to the conflict and thereby acquires certain duties by virtue of the Geneva (PW) Convention. Representatives of the protecting power are permitted to visit PW’s

wherever they are located. The representatives report to the party to the conflict whose interest they represent concerning the treatment being accorded to personnel held as PW’s. Humanitarian agencies, such as the International Committee of the Red Cross, may be a possible substitute for a protecting power.

19-3. Objectives

The more important objectives sought in handling enemy PW and civilian internees include—

- a. Acquisition of maximum intelligence information within restrictions imposed by the laws of land warfare.
- b. Prevention of escape and liberation.
- c. Conservation of own resources.
- d. By example, promotion of proper treatment of own personnel captured by the enemy.
- e. Weakening the will of the enemy to resist capture.
- f. Making maximum use of PW and civilian internees as sources of labor.
- g. Institution of an information program designed to encourage maximum cooperation among the PW’s and increase the number of defectors.

19-4. Principles

The principles used in achieving the objectives sought in handling PW and civilian internees include—

- a. Provision of humane treatment.
- b. Prompt evacuation from the combat zone.
- c. Provision of opportunity for interrogation.
- d. Indoctrination of troops in the provisions of international agreements and regulations relating to PW and civilian internees.
- e. Integration of procedures for evacuation, control, and administration of PW and civilian internees with other combat service support operations.

19-5. Army Responsibilities

The Army is responsible from the moment of capture for PW and civilian internees taken by its own forces. The Navy and the Air Force are responsible for PW and civilian internees captured by their respective forces until such time as the PW and the civilian internees are

delivered to designated Army receiving points. After delivery to these receiving points, the Army is responsible for the PW and civilian internees. Specific Army responsibilities include—

- a. Evacuation from the receiving points.
- b. Interment.
- c. Medical care.
- d. Treatment.
- e. Education.
- f. Religious care.
- g. Employment and compensation.
- h. Repatriation.
- i. Operation of PW and civilian internee information centers.
- j. Maintenance of an appropriate office of record.

19-6. PW and Civilian Internees in Stability Operations

a. *General.* FM 19-40 contains details on the handling of PW and civilian internees in stability operations.

b. *Control Measures.* The imposition of control measures during stability operations results in the capture and detention of insurgents, sympathizers, suspects, combatants who surrender under provisions of host country amnesty programs, and civilians who do not support the insurgents, as well as the confiscation of contraband critical materiel. Measures for handling, accountability, and disposition should include—

- (1) Segregation as soon as practicable.
- (2) Provision of local detention and interrogation facilities.
- (3) Provision for interrogation by host country police and intelligence personnel.
- (4) Documentation of circumstances of

capture and recording in local police files for analysis of trends and patterns.

(5) Documentation and distribution of intelligence obtained.

(6) Proper referral of captured insurgents and others for prosecution.

(7) Rapid transfer of combatants who surrender under amnesty programs to rehabilitation centers.

(8) Identification of confiscated materiel, including circumstances of confiscation, and the safeguarding and turning over of the materiel to the appropriate authority when requested.

c. *Amnesty and Rehabilitation.* Amnesty, pardon, rehabilitation, a system of rewards, and reeducation are part of the populace and resources control program. Reward programs are instituted. Defectors or prisoners receive payment for information, capture of insurgent leaders, and turn-in of insurgent weapons and equipment. Defectors serve profitable uses in psychological operations directed toward the population to counteract insurgent propaganda. Amnesty and rehabilitation programs should include—

(1) Provisions to allow disaffected members of the population to revert to the support of the government without undue fear of punishment for previous antigovernment acts whenever possible.

(2) Equitable and scrupulously observed execution of the programs aimed at causing disaffection among the insurgents and their supporters.

(3) Rehabilitation of former insurgents and their supporters through a program of reeducation.



APPENDIX A

REFERENCES

A-1. Army Regulations

AR 1-35	Administration—Basic Policies and Principles for Inter-service and Interdepartmental Logistic Support.
AR 1-251	Army Data Processing Systems Program.
AR 10-5	Department of the Army.
AR 10-11	U.S. Army Materiel Command.
AR 11-8	Logistics Policies and Procedures.
(S) AR 11-11	Major Command Stockage Levels Worldwide (U).
(S) AR 11-12	Supply Priorities (U).
AR 11-14	Army Programs—Logistic Readiness.
AR 37-36	Pay, Allowances, and Deposit of Personal Funds—Prisoners of War and Civilian Internees.
AR 37-series	Financial Administration.
AR 55-45	Military Standard Transportation and Movement Procedures (MIL-STAMP) Responsibilities.
AR 59-106	Operation of Air Force Terminals.
AR 75-15	Responsibilities and Procedures for Explosive Ordnance Disposal.
AR 310-10	Orders.
AR 320-5	Dictionary of United States Army Terms (Short Title: AD).
AR 320-50	Authorized Abbreviations and Brevity Codes.
AR 345-series	Records.
AR 360-5	General Policies.
AR 380-41	Control of Cryptomaterial.
AR 415-35	Minor Construction.
AR 600-10	The Army Casualty System.
AR 600-14	Preventive Law Program.
AR 600-16	Personnel Service Division; Organization and Procedures.
AR 600-17	The Division Personnel Support System; Organization and Procedures.
AR 600-30	Character Guidance Program.
AR 630-5	Leave.
AR 633-50	Prisoners of War; Administration, Employment, and Compensation.
AR 633-51	Civilian Internees; Administration, Employment, and Compensation.
AR 638-40	Care and Disposition of Remains.
AR 643-55	Distribution of Personal Effects—Military Operations.
AR 672-5-1	Awards.
AR 672-20	Incentive Awards.
AR 700-5	Organization and Operation of Inventory Control Points.
AR 700-15	Preservation—Packaging, Packing and Marking of Items of Supply.
AR 700-18	Repair Parts, Special Tools and Test Equipment, Allocation and Allowances.
AR 700-19	Provisioning of Army Materiel.

AR 700-33	Cargo Unitization.
AR 700-9100-5	Operating Procedures for Bulk Petroleum and Coal Products.
AR 710-25	Defense Supply Agency Provisioning Responsibilities.
AR 711-16	DSU/Installation Stock Control and Supply Procedures (Army Field Stock Control System).
AR 711-25	Stockage of Supplies and Maintenance of Authorized Stockage Lists.
AR 725-50	Requisitioning, Receipt, and Issue System.
AR 725-65	Operational Projects.
AR 740-12	Covered and Open Storage of Supplies.
AR 750-1	Maintenance Concepts.
AR 750-5	Organization, Policies, and Responsibilities for Maintenance Operation.
AR 750-6	Maintenance Support Planning.
AR 750-8	Command Maintenance Management Inspections (CMMI).
AR 750-18	Communications Security Equipment Maintenance.
AR 755-26	Captured Enemy Equipment and Other Foreign Materiel.
AR 750-50	Use of Controlled Cannibalization as a Repair Parts for Supply Augmentation.

A-2. Department of the Army Pamphlets

DA Pam 1-52	Techniques of Work Simplification.
DA Pam 27-1	Treaties Governing Land Warfare.
DA Pam 27-5	Staff Judge Advocate Handbook.
DA Pam 608-2	The Army Personal Affairs Handbook.
DA Pam 608-4	For Your Guidance.
DA Pam 690-80	Administration of Foreign Labor During Hostilities.
DA Pam 750-10	Command Maintenance Management Inspection Handbook.

A-3. Joint Chiefs of Staff Publications

JCS Pub 2	Unified Action Armed Forces (UNAAF).
(C) JCS Pub 3	Joint Logistics and Personnel Policy and Guidance (U).

A-4. Field Manuals

FM 1-100	Army Aviation Utilization.
FM 3-1 (Test)	Chemical, Biological, Radiological (CBR) Combat Service Support, TASTA-70.
FM 3-8	Chemical Reference Handbook.
FM 3-10	Employment of Chemical and Biological Agents.
FM 3-12	Operational Aspects of Radiological Defense.
FM 5-1	Engineer Troop Organizations and Operations.
FM 5-20	Camouflage, Basic Principles and Field Camouflage.
FM 5-142-1 (Test)	Construction Support to FASCOM.
FM 5-144	Engineer Amphibious Units.
FM 5-146	Engineer Topographic Units.
FM 5-162	Engineer Construction and Construction-Support Units.
FM 5-162-1 (Test)	Engineer Command TASCUM.
FM 8-10	Medical Service, Theater of Operations.
FM 8-15	Division Medical Service, Infantry, Airborne, Mechanized, and Armored Divisions.
FM 8-16	Medical Service, Field Army.
FM 8-16-1 (Test)	Medical Service, Field Army.
FM 8-17-1 (Test)	Medical Service, Communications Zone.

FM 8-55	Army Medical Service Planning Guide.
FM 9-6	Ammunition Service in the Theater of Operations.
FM 9-6-1 (Test)	Ammunition Service in the Theater of Operations, TASTA-70.
FM 9-30	Maintenance Battalion, Division Support Command.
FM 10-8-1 (Test)	Air Delivery of Supplies and Equipment in the Theater of Operations.
FM 10-20	Supply of Petroleum in Theaters of Operations.
FM 10-50	Supply and Transport Battalion, Division Support Command.
FM 10-60	Supply of Subsistence in a Theater of Operations.
FM 10-63	Handling of Deceased Personnel in Theaters of Operations.
FM 11-20	Signal Operations, Theater of Operations.
FM 11-21	Tactical Signal Communication Systems, Army, Corps, and Division.
FM 11-23	U.S. Army Strategic Communications Command (Theater).
FM 12-2	Adjutant General Operations in the Field Army.
FM 12-11	Administration Company, Division and Separate Brigade.
FM 14-3	Comptroller Support in Theater of Operations.
FM 16-5	The Chaplain.
FM 19-2	Military Police Support in the Field Army.
FM 19-2-1 (Test)	Military Police Support, FASCOM.
FM 19-3	Military Police Support in the Communications Zone.
FM 19-3-1 (Test)	Military Police Support, TASCUM.
FM 19-40	Enemy Prisoners of War and Civilian Internees.
FM 19-45-1 (Test)	Rear Area Protection.
FM 21-30	Military Symbols.
FM 21-40	Chemical, Biological, and Nuclear Defense.
FM 21-41	Soldier's Handbook for Defense Against Chemical and Biological Operations and Nuclear Warfare.
FM 24-1	Tactical Communications Doctrine.
FM 27-4 (Test)	Judge Advocate Support in Theaters of Operations.
FM 27-10	The Law of Land Warfare.
FM 29-3-1 (Test)	Direct Support Supply and Service Operations.
FM 29-5	The Field Depot.
FM 29-6	The Personnel Command.
FM 29-10	Supply Management in the Field Army.
FM 29-10-1 (Test)	The Field Army Supply Management System.
FM 29-11 (Test)	Cryptologic Support to the Army in the Field 1965-1970.
FM 29-20	Maintenance Management in Theaters of Operations.
FM 29-22	Maintenance Operations in the Field Army.
FM 29-45-1 (Test)	General Support Supply and Service in the Field Army.
FM 30-5	Combat Intelligence.
FM 30-9	Military Intelligence Battalion, Field Army.
FM 30-16	Technical Intelligence.
FM 30-17	Counterintelligence Operations.
(C) FM 30-17A	Counterintelligence Special Operations (U).
FM 30-28	Armed Forces Censorship.
(C) FM 30-31	Stability Operations—Intelligence (U).
(S) FM 30-31A	Stability Operations—Intelligence Collection (U).
FM 31-11	Doctrine for Amphibious Operations.
FM 31-12	Army Forces in Amphibious Operations (The Landing Force).
FM 31-16	Counter guerrilla Operations.
FM 31-21	Special Forces Operations.

FM 31-22	U.S. Army Counterinsurgency Forces.
FM 31-23	Stability Operations—U.S. Army Doctrine.
FM 31-45	Explosive Ordnance Disposal Service.
FM 31-75 (Test)	Riverine Operations.
FM 33-1	Psychological Operations—U.S. Army Doctrine.
FM 38-1	Logistics Supply Management.
FM 38-2-1	Logistics Materiel Management—Requirements.
FM 38-5	Logistics, Maintenance Management.
FM 41-5	Joint Manual for Civil Affairs.
FM 41-10	Civil Affairs Operations.
FM 41-15 (Test)	Civil Affairs Support, TASTA-70.
FM 44-1	U.S. Army Air Defense Artillery Employment.
FM 54-2	The Division Support Command.
FM 54-3	The Field Army Support Command.
FM 54-4	The Support Brigade.
FM 54-5-1 (Test)	The Supply and Maintenance Command.
FM 54-6-1 (Test)	The Area Support Command, TASTA-70.
FM 54-7	Theater Army Support Command (TASCOM).
FM 54-8 (Test)	The Administrative Support, Theater Army (TASTA-70).
FM 55-4-1 (Test)	Transportation Movements in a Theater of Operations.
FM 55-6-1 (Test)	Transportation Service in a Theater of Operations.
FM 55-10	Transportation Movement Services, Field Army.
FM 55-21-1 (Test)	Transportation Railway Units and Operations.
FM 55-35-1 (Test)	Motor Transportation and Motor Transport Units.
FM 55-45	Aircraft Maintenance Services and Units in the Field Army.
FM 55-46-1 (Test)	Army Air Transport Operations.
FM 55-50-1 (Test)	Transportation Amphibious Operations.
FM 55-51	Transportation Terminal Command, Theater of Operations.
FM 55-55-1 (Test)	Transportation Terminal Operations.
FM 55-56	Transportation Terminal Transfer Company.
FM 57-1	U.S. Army/U.S. Air Force Doctrine for Airborne Operations.
FM 57-35	Airmobile Operations.
FM 61-100	The Division.
FM 100-5	Field Service Regulations—Operations.
FM 100-15	Field Service Regulations—Larger Units.
(C) FM 100-20	Field Service Regulations—Internal Defense and Development (IDAD) (U).
FM 100-27	U.S. Army/U.S. Air Force Doctrine for Tactical Airlift Operations.
FM 101-5	Staff Officers' Field Manual—Staff Organization and Procedure.
FM 101-10-1	Staff Officers' Field Manual—Organization, Technical, and Logistic Data (Unclassified Data).
FM 101-10-2	Staff Officers' Field Manual—Organization, Technical, and Logistic Data (Extracts of Tables of Organization and Equipment).
(S) FM 101-10-3	Staff Officers' Field Manual—Organization, Technical, and Logistic Data (Classified Data) (U).
FM 101-31-1	Staff Officers' Field Manual—Nuclear Weapons Employment, Doctrine and Procedures.
(S) FM 101-31-2	Staff Officers' Field Manual—Nuclear Weapons Employment, Effects Data (U).

A-5. Technical Manuals

TM 3-210	Fallout Prediction.
TM 3-220	Chemical, Biological, and Radiological (CBR) Decontamination.
TM 5-301	Staff Tables of Engineer Functional Components System.
TM 5-302	Construction in the Theater of Operations.
TM 5-303	Bills of Materials and Equipment of the Engineer Functional Components System.
TM 5-311	Military Protective Construction (Nuclear Warfare and Chemical and Biological Operations).
TM 38-230	Preservation, Packaging, and Packing of Military Supplies and Equipment.
TM 38-250	Packaging and Handling of Dangerous Materials for Transportation by Military Aircraft.
TM 38-715	Provisioning Requirements for U.S. Army Equipment (Short Title: PR-1).
TM 38-715-1	Provisioning Techniques.
TM 38-750	Army Equipment Record Procedures.
TM 38-750-1	Maintenance Management—Field Command Procedures.
TM 38-750-2	Maintenance Management—National Agency Procedures.
TM 743-200-1	Storage and Materials Handling.
TM 743-200-2	Storage Modernization.

A-6. Supply Bulletins

SB 3-39	Basic Loads of Chemical Nontoxic Ammunition.
(C) SB 38-26	Ammunition Supply Rates (U).
SB 700-20	Army Adopted Items of Materiel.

A-7. Other Publications

CPR Reg A2	Administrative References.
CPR Reg M100	Mobilization Planning and Execution.
MIL-STD 129D	Military Standard Marking for Shipment and Storage.



APPENDIX B

TYPICAL FORMAT FOR BASE DEVELOPMENT PLAN

In the following typical format for a base development plan, those subparagraphs that are not pertinent may be omitted. The base development plan may contain sufficient information and procedures extracted from standing opera-

ting procedures, other plans, and orders to permit its use as a basis for the complete construction, organization, and operation of the base.

(Classification)

Copy No. ____
Issuing headquarters
Place of issue
Date-time group of signature
Message reference number

Administrative Plan _____ (Base Development)

(NOTE: The base development plan may be issued as Appendix _____ (Base Development) to Annex _____ (Logistics) to Operation or Campaign Plan _____, or it may be issued as Annex _____ (Base Development) to Operation or Administrative Plan _____.)

References: (Maps, charts, and other relevant documents.)

Time zone: (Used throughout the plan; if unnecessary, omit.)

1. SITUATION

a. Enemy Forces. (Enemy capability to influence or impede the execution of the base development-plan.)

b. Friendly Forces. (Include sufficient information to provide a concept of the overall situation, including U.S. and allied command organization, plans of higher headquarters, and the operations of friendly troops that may influence the execution of the base development plan; may make reference to operation plan, letter of instructions, or campaign plan.)

(1) Objectives.

(2) Strategic concept.

(3) Tasks. (Include responsibilities for base development of theater army, navy, and air force and joint task force commanders.)

(4) Scheme of maneuver.

(a) Phases.

(b) Timing.

(5) Strategic intelligence data. (May be in annex or appendix.)

(a) Natural resources. (Include availability of construction materials and self-sufficiency of local population.)

(b) Existing facilities.

(Classification)

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(Short title identification)

(c) Climate and terrain. (Features such as severe climate or unusual terrain or soil conditions that have a significant effect on base development.)

(6) Summary of agreements with friendly governments. (Those agreements that concern the base, such as real estate allocation, legal jurisdiction, defense responsibility, and use of facilities. May be in annex or appendix.)

c. Assumptions. (Assumptions on extent of destruction and operability of existing facilities.)

2. MISSION

(A simple statement of the who, what, where, and when of the base to be developed. Do not confuse the mission of the base with the overall mission of the command, which should be set forth under paragraph 1, Situation.)

3. EXECUTION

(Contains information pertaining to the organization, construction, and operation of the base, to include responsibilities; locations; missions; scheduled completion dates; number, types, and arrival dates of troops and equipment; size and type of facilities, when appropriate; and allocation of services, functions, and areas.)

a. General.

(1) General concept and scope of base development. (Describe briefly the general character and approximate size of the base to be developed. Breakdown of paragraph 2, Mission, into phases, if appropriate.)

(2) Base organization. (Show the command organization in the theater and the base and the combat service support responsibilities of the elements of each—theater army, navy, air force, and joint commands.)

(3) Responsibilities. (Show responsibilities for base development planning, including preparation, approval, and issuing of plans.)

(4) Basic considerations. (General information. Specific details are included in appropriate subparagraphs.)

(a) Degree of permanency of construction. (Policies and standards for construction of installations.)

(b) General limitations. (On use of facilities, personnel, materials, equipment, and construction.)

(c) General layout plans. (Maps or overlays usually included as annexes, appendixes, or tabs.)

(d) Priority of development.

1. General priority.

2. General echelonment of base forces and base development materiel.

3. Specific priority of principal development projects.

(e) Pertinent directives and publications.

(Classification)

(Classification)

(Short title identification)

b. Materiel and Services.

(1) Supply.

(a) General organization for supply.

1. Responsibilities for supply.
2. Procurement.
3. Levels of supply.
4. Distribution.
5. Requisitioning procedure.
6. Maintenance. (In-storage.)
7. Disposal. (Salvage, excess, captured materiel, and contaminated waste.)

(b) Army installations. (Each class of supply, map supply, and Adjutant General publications supply depots, direct support supply and maintenance facilities, and control centers. May be in tabular form to show, for example, location; mission; time of opening; operating troop units; quantity and type of supplies stored; and basic facilities required, such as covered storage, open storage, and special requirements.)

(c) Air Force installations.

(d) Navy and Marine air installations.

(e) Navy installations other than air.

(f) Marine installations other than air.

(2) Transportation.

(a) General organization and information. (U.S. and indigenous organizations responsible for development, rehabilitation, operation, and maintenance of the transportation systems in the base. Designate the organization responsible for transportation to and from the base. Also include transportation policies and movement priorities.)

1. Motor transportation.
2. Air transportation.
3. Water transportation.
4. Rail transportation.
5. Pipelines.
6. Responsibilities of each Service.

(b) Terminal facilities.

1. Assault landing areas.
2. General organization of water terminal facilities.
3. Beaches. (Required throughput capacity of each by time phase and units required to operate.)
4. Port A. (Organization, units assigned to operate and maintain the port, and throughput capacity by time phase.)
 - (a) Harbor development.
 - (b) Port development.
5. Port B.
6. Air terminal facilities. (Include required capacity by time phase.)

(Classification)

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(Short title identification)

(c) Roads, railroads, waterways, and pipelines. (For each mode (1-4, below), show location overlay, describe characteristics of existing facilities and development to be performed, and required capacity of each segment of the transportation net by time phase.)

1. Roads.

2. Railroads.

3. Waterways.

4. Pipelines. (Include discharge facilities, pumping stations, terminals, tank farms, laboratories, and control facilities.)

(3) Services.

(a) Construction.

1. Organization and responsibilities for construction.

2. Construction policies and standards (or refer to a(4), above).

3. Construction units and troop requirements.

4. Construction facilities. (Shops, quarries, equipment pools.)

5. Construction projects, priorities (in accordance with a(4) (d) 3, above), and materials and equipment summary. (Include here or in an annex, as appropriate, all information needed to give a complete outline of each proposed construction project.)

6. Consolidated construction schedule. (Describe the schedule for starting work on each project, the rate of progress or expenditure of effort, and usable and final completion dates for each project. Identify that part of the construction effort which the civilian economy is assumed capable of providing.)

7. Summary of real estate requirements, showing dates required.

8. Special camouflage requirements.

(b) Communications.

1. Communications-electronics policies.

2. Organization.

3. General communications plan.

4. Responsibilities.

5. Units assigned.

6. Facilities.

(a) Theater.

(b) Army.

(c) Navy and Marine.

(d) Air Force.

7. Special projects.

(c) Maintenance. (Organization, responsibilities, levels authorized, priorities, and facilities required by time phase.)

(d) Utilities. (Organization for development, maintenance, and operation; facilities required by time phase; and facilities available or to be constructed.)

(Classification)

(Classification)

(Short title identification)

1. Power.
2. Water supply.
3. Sewage.
4. Waste disposal.
- (e) Miscellaneous services. (Organization, responsibilities, and facilities.)
 1. Laboratory.
 - (a) Chemical.
 - (b) Medical.
 - (c) Petroleum (here or in (2) (c) 4, above).
 2. Firefighting.
 3. Mapping and map reproduction.
 4. Disposal of hazardous materials. (Bomb disposal, radioactive waste, and toxic materials.)
 5. Laundry and clothing impregnation.
 6. Bath and shower.
 7. Bakery.
 8. Personal effects service.
 9. Photography.
 10. Medical, dental, and veterinary. (Spectacle service, preventive medicine, laboratory, whole-blood distribution, epidemiological control, health, and sanitation.)
 11. Other services. (Those services that are not included in other subparagraphs.)
- (4) Labor. (Policies, restrictions, allocations, priorities, and responsibilities for provision and use of labor—civilian, prisoner of war, and military—for base development.)
- c. Medical Evacuation and Hospitalization.
 - (1) Evacuation.
 - (a) Policy. (Theater policy and policies within the theater and the base.)
 - (b) Means of transportation and responsibilities.
 - (c) Facilities. (Convalescent, holding, and clearing.)
 - (2) Hospitalization organization and information. (Include local civilian medical facilities.)
 - (a) Responsibility.
 - (b) Hospital construction standards.
 - (c) Hospital summary.
 - (3) Army hospitals.
 - (a) Requirements by time phase.
 - (b) Location.
 - (c) Units assigned.
 - (d) Facilities and plants.
 - (4) Other Army Medical Service facilities.

(Classification)

(Classification)

(Short title identification)

(a) Dental organization and information.

1. Clinic construction standards.
2. Requirements by time phase.
3. Location.
4. Units assigned.

(b) Veterinary organizations.

1. Veterinary facility construction standards.
2. Requirements by time phase.
3. Location.
4. Units assigned.

(c) Dispensaries.

1. Construction standards.
2. Requirements.
3. Location.
4. Units assigned.

(5) Navy and Air Force medical facilities. (As required.)

d. Personnel.

(1) Strengths.

(a) Force requirements—D + _____ (days)	Strengths
1. Army	_____
2. Navy	_____
3. Air Force	_____

(This is a statement of the forces that the base can expect to be supporting when it is built up to its desired operating capacity. A base may be assigned succeeding tasks (e.g., to support a particular operation and, subsequently, to provide a base for further operations), in which case this subparagraph should be subdivided to show task A and task B. In some cases, a simple statement of the strengths to be supported may not give the information desired; in such cases, this subparagraph should be expanded to show major types of forces and strengths.)

(b) Force buildup tables (to include phased deployment schedules).

1. Army.
2. Navy.
3. Air Force.

(This is the buildup of (a), above, and shows the forces to be supported by critical phases. It does not show the buildup of base forces, except when base forces are included in those forces requiring support. The buildup of base forces to accomplish base development is shown in a(4), above, and in f(7), below.)

(c) Replacements. (For 2 through 5, below, include location and capacities by time phase.)

1. Organization and responsibilities.
2. Replacement units and camps.
3. Training and rehabilitation centers.

(Classification)

(Classification)

(Short title identification)

4. Staging areas and tent camps.
5. Recruiting stations.
- (2) Personnel management.
 - (a) Procedures. (Include any information and instructions concerning classification, assignment, promotion, transfer, reclassification, demotion, elimination, training, rotation, and personnel economies pertinent to base development.)
 - (b) Civilian personnel.
 1. Sources and restrictions on use.
 2. Procurement policies.
 3. Administration and control procedures.
 4. Facilities. (Civilian personnel offices and mobile labor camps.)
 - (c) Prisoners of war and civilian internees.
 1. Organization for collection, safeguarding, and processing.
 2. Evacuation and estimated rate of capture.
 3. Policies for facility utilization, treatment, and discipline.
 4. Prisoner-of-war camps. (Tentative locations and capacities by time phase.)
 5. Civilian internee camps. (Tentative locations and capacities by time phase.)
- (3) Morale and personnel services. (Show location and capacity by time phase of each facility.)
 - (a) Leave, rest, and recreation policies.
 - (b) Rest areas, recreation centers, and leave areas.
 - (c) Postal organization and facilities.
 - (d) Finance service and facilities.
 - (e) Religious activities. (Organization and facilities.)
 - (f) Special services. (Policies.)
 1. Theaters and auditoriums.
 2. Athletic organization and facilities.
 3. Service clubs.
 - (g) Officers' and noncommissioned officers' clubs.
 - (h) Army exchange service.
 1. Organization and responsibilities.
 2. Procurement policies.
 3. Facilities.
 - (i) Welfare agencies. (Include organization of American Red Cross and other welfare agencies and locations and types of facilities and construction support to be provided by time phase.)
 - (j) Legal assistance. (Specific information concerning the organization for providing legal assistance in base development problems, processing of contracts, and legal pitfalls in the base area.)
- (4) Graves registration.
 - (a) Organization and responsibilities.

(Classification)

(Classification)

(Short title identification)

(b) Policies and procedures. (Identification and evacuation, handling of personal effects, ceremonies, isolated burials, mass burials, or contaminated remains.)

(c) Mortuaries. (Include tentative locations and capacities by time phase.)

(d) Cemeteries. (Include tentative locations and capacities by time phase.)

(5) Maintenance of discipline, law and order.

(a) Organization and responsibilities.

(b) Military police units. (Other than prisoner-of-war control units.)

(c) Facilities. (Include location and requirements by time phase.)

1. Local military police headquarters.

2. Stockades.

(3) Other personnel facilities. (Organization, responsibilities, and facilities for any other personnel services not included in preceding subparagraphs.)

e. Civil Affairs.

(1) Organization and responsibilities.

(2) Civil affairs units and location.

(3) Organization and procedures for control of refugees.

(4) Special instructions for tactical troops regarding civil facilities that should be secured and safeguarded for use by U.S., allied, or local government elements.

(5) Policies on provision of labor to U.S. elements.

(6) Policies for support of civil populace.

(7) Facilities and support to be provided by U.S. elements. (Include location and requirements by time phase.)

(a) Civil affairs unit headquarters.

(b) Refugee and displaced-person camps.

(c) Medical support, emergency food, and shelter.

(d) Public works and utilities.

(e) Public transportation.

(f) Public communications.

(g) Special civil assistance projects.

(8) Development of natural resources.

(9) Development and reconstruction of industry.

f. Miscellaneous.

(1) Boundaries. (Refer to a(2), above. Show joint, Army, Navy, and Air Force boundaries for tactical, combat service support, and defensive area of responsibility. All boundaries may be included in other appropriate subparagraphs and documents.)

(2) Headquarters.

(Classification)

(Classification)

(Short title identification)

(a) Location and time of opening of each major headquarters in the theater or base. (Include U.S. unified or specified command; subordinate joint commands; theater army, navy, and air force; the major subordinate commands of theater army, navy, and air force; as appropriate, the major subordinate commands of theater army support command; and allied command headquarters.)

(b) Strengths of headquarters and headquarters support troops.

(c) Facilities required by location and time phase. (Office space, headquarters support facilities, and quarters.)

(d) Headquarters layout plans.

(3) Protection. (Organization, responsibilities, and facilities required.)

(a) Air defense (less airfields).

(b) Rear area protection.

(c) Ground defense.

(d) Coast defense.

(e) Local naval defense (harbor defense).

(f) Counterintelligence and electronic countermeasures.

(g) Bomb and mine disposal.

(h) Alarm and warning systems.

(4) Airbases and seaplane bases.

(a) Aviation units assigned to fields and bases by time phase.

(b) Responsibility for planning, construction, and operational features of the base.

(c) Airfield 1.

1. Organization and responsibility.

2. Facilities required by time phase. (Runways, support administration, air traffic control.)

3. Priorities of construction of base facilities.

(d) Airfield 2.

(e) Seaplane base A.

(f) Army airfield I.

(5) Missile sites. (Responsibility for planning, construction, and operation. Facilities required by time phase and priorities.)

(6) Other facilities.

(7) Requirements summary.

(a) Supply requirements.

1. Dry cargo.

2. Bulk petroleum, oil, and lubricants.

(b) Evacuation requirements.

(c) Transportation requirements.

(d) Construction requirements.

(e) Total strength requirements.

(f) Echelon schedule based on requirements for each base site and consolidated into one proposed echeloning schedule for entire base development.

(Classification)

(Classification)

(Short title identification)

(g) Final approved shipping schedule for all base development during entire development period.

4. MISCELLANEOUS

a. Effective date and implementing procedures.

b. Instructions relative to changes in base development plans and to submission of reports.

Acknowledgment instructions.

/s/

Commander

Annexes: (As required. The following types of annexes normally will be part of a base development plan.)

A—Strategic Intelligence Data

B—Summary of Agreements With Friendly Governments

C—General Base Development Maps and Overlays (showing sites allocated to Army, Navy, Air Force, and joint activities)

D—Organization Charts (showing command relationships)

E—Layout Plans

F—Base Development Projects (list and schedule showing priority and usable and final completion dates)

G—Troop Lists or Troop Basis

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